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ABSTRACT

An introduction by Gregory R. Anrig summarizes these proceedings. Benjamin Payton keynoted the conference by describing a major task of American education as providing individuals with mobility, equity, and opportunities for a better economic life. M. Susana Navarro spoke about the effects that new state standards for quality in education have had on the access of minority students to higher education. James Blackwell offered 12 suggestions aimed at increasing access and reducing the attrition rate of minority students in college and professional schools. Constance Clayton described a number of successful Black and Hispanic high schools. Bernard Gifford suggested that teacher testing might serve as a form of recognition for educators who wish to demonstrate special proficiency in their profession. Raphael Cortada pointed out the specific problems that community colleges now face in an age of change without growth. Tomas Arciniega and Steven Arvizu made specific suggestions that colleges can implement in order to improve quality and equality on their campuses. Frank Newman closed with a historical as well as a future look at American education. (PN)

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INVITATIONAL CONFERENCE PROCEEDINGS

Educational Standards, Testing, and Access

Proceedings of the 1984 ETS Invitational Conference

EDUCATIONAL TESTING SERVICE
PRINCETON, NEW JERSEY 08541

The forty-fifth ETS Invitational Conference, sponsored by Educational Testing Service, was held at The Plaza, New York City, on October 29, 1984.

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Contents

v	Introduction by Gregory R. Anrig
ix	Presentation of the 1984 ETS Award for Distinguished Service to Measurement to Louis Guttman
xi	Special ETS Award for Distinguished Service to Measurement to Henry Chauncey
1	Opening Remarks: Educational Testing, Standards, and Access Gregory R. Anrig
7	Improving Access and Standards: What Kind of Education Do We Want? Benjamin F. Payton
15	The Quality Education Movement: New State Standards and Minority Access to College M. Susana Navarro
23	Increasing Access and Retention of Minority Students in Graduate and Professional Schools James E. Blackwell
39	Successful Black and Hispanic Schools Constance E. Clayton
47	Teacher Competency Testing and Its Effects on Minorities: Reflection and Recommendations Bernard R. Gifford
69	Change Without Growth: The Access Dilemma of the Community College in the 1980's Rafael L. Cortada
79	What Colleges Must Do to Achieve Quality and Equity: A Campus-Based Case Study Steven F. Arvizu and Tomás A. Arciniega
97	Standards, Testing, and Access in the Year 2001 Frank Newman

Introduction

In the area of education, we are still a "nation at risk," according to numerous recent studies. Our educational standards, we are told, are too low, or the wrong kind, or not implemented effectively. Tests that are supposed to evaluate whether those standards have been met do not do what they are designed to do. And finally, it is clear that access to quality education is still limited for some segments of our population.

These are serious issues. At risk is an entire generation of young people, the future of our country, as well as their parents and other adults who are already a part of the American workplace. For this reason, given the urgency of addressing the issues and especially, of taking successful steps to implement solutions, the 1984 ETS Invitational Conference focused on the subject of "Educational Standards, Testing, and Access."

As president of Educational Testing Service, I have seen in recent years much reason for optimism that the call for reforms trumpeted in the seventies and the early years of this decade has been heard and answered. After more than 16 years of decline, the Scholastic Aptitude Test scores of high school students have begun to rise. A major reason for this turnaround is the significant improvement in the performance of Black, Hispanic, and Native American students.

We must continue to address important educational deficiencies among our young people, however, as our distinguished conference participants reminded us.

Benjamin Payton, president of the Tuskegee Institute, keynoted the Conference with a paper that described education in America as unique. One of its major tasks, he continued, is to provide individuals with "mobility, equity, and opportunities for a better economic life."

What are the issues relating to access and educational standards? Robert Solomon, executive vice president of ETS, moderated the first session, at which M. Susana Navarro, director of research and policy analysis for the Mexican American Legal Defense and Educational Fund, spoke about the effects that new state standards for quality in education have had on the access of minority students to higher education. James Blackwell, professor of sociology at the University of Massachusetts, offered 12 concrete suggestions aimed at increasing ac-

cess and reducing the attrition rate of minority students in college and professional schools.

Two concurrent sessions were devoted to Improving Standards and Success in the Schools, chaired by ETS vice president Robert Altman, and Improving Standards and Success in the Colleges, chaired by ETS vice president Alice Irby.

At the session dealing with issues pertinent to high schools, Constance Clayton, superintendent in the Philadelphia public school system, described a number of high schools that work. Her portraits of Central High, of Girls', and of Gompers High Schools remind us of the truth of her personal credo, "The children come first." Bernard Gifford, dean of the School of Education, University of California, suggested that teacher testing, instead of being a check on minimum competencies, might serve more fruitfully as a form of recognition for educators who wish to demonstrate special proficiency in their profession.

The second of the concurrent sessions focused on improvements at the college level. Raphael Cortada, president of El Camino College, pointed out the specific problems that community colleges now face in an age of change without growth. Access, he reminded the assembly, can become more difficult unless certain issues are addressed. He used recent efforts at changing matriculation requirements and reaching out to the local community to demonstrate gains made at El Camino and elsewhere in California.

Tomás Arciniega, president of California State College at Bakersfield, coauthor of the paper herein presented by Steven Arvizu, dean of Graduate Studies at the same institution, made specific suggestions that colleges can implement in order to improve quality and equality on their campuses. Their joint paper uses California State College at Bakersfield as a model for change.

The 1984 ETS Invitational Conference closed with a historical perspective offered by Frank Newman, president, Education Commission of the States. Education over the years has shifted from a "function of privilege and position" to a system based on "merit and determination," said Newman. For the future, he argues, the challenge will be to find not the applicant who may get the best grades and cause the least trouble but the individual "who will do the most in life." Creativity, risk-taking, international understanding, and a sense of civic concern and responsibility will be the values of tomorrow.

Herein lies the challenge for today and tomorrow—excellence and equity—both broadly defined and both universal.

Gregory R. Anrig
President
Educational Testing Service

The ETS Award for Distinguished Service to Measurement

Presented to:

LOUIS GUTTMAN

During the past 30 years, Louis Guttman has served as a professor-at-large at Cornell University; a visiting professor at MIT, Harvard and the University of Michigan; a distinguished visiting professor at Michigan State University; and a fellow at the Center for Advanced Study in the Behavioral Sciences at Stanford.

Louis Guttman's contributions to measurement over the past fifty years comprise a stunning series of seminal insights and elegant mathematical proofs. They are so fundamental as to challenge our very conceptions of what illustrates the essence of his challenge and the power of his innovation. Rather than assigning numbers in advance to each variable separately in order to study their interrelationships, Guttman instead derives the numbers from the joint distribution itself. Herein lie the precursors not only of conjoint measurement but, more generally, of nonmetric analysis.

Louis Guttman's contributions are also impressive for their breadth of coverage and range of application. These include originating the type of scale analysis that bears his name and applying it to the measurement of attitudes and other qualitative attributes, explicating the mathematical foundations of reliability theory and factor analysis, formulating radex theory and facet theory, developing image analysis and smallest-space analysis.

Even more impressive is the integration that this work has led to, such as the powerful theorems that link not only image analysis but common-factor analysis and other factor models to the theory of reliability. A central theme in Guttman's work has been that measurement is not merely the assignment of number but the construction of structural theory. In attempting to make sense out of factor analysis and other multivariate problems, Guttman was led to nonmetric structural ideas such as the simplex and circumplex and to the idea of facets for definitional structures. By such bold leaps of intellect, Guttman has provided a general and parsimonious means not only for numerically

representing data structures but for interpreting and understanding them as well.

For his seminal contributions to reliability theory, factor analysis, image analysis, and scaling, for his innovative development of facet theory and its application to test design and analysis, and for being the long unheeded progenitor of nonmetric analysis, Educational Testing Service is privileged to present its 1984 Award for Distinguished Service to Measurement to Louis Guttman.

Special ETS Award for Distinguished Service to Measurement

Presented to:

HENRY CHAUNCEY

In the list of those who have helped to redraw the map of measurement, few names stand equal to that of Henry Chauncey. Over a half century ago, he was instrumental in launching Harvard's National Scholarship program as a nationwide search for talent, using SAT scores as his searchlight. That early undertaking, novel in its day, foreshadowed his lifelong concern for the identification and development of talent, his dedication to the positive use of tests, his affinity for the unconventional, and his unstoppability in the pursuit of any worthwhile educational goal.

Henry Chauncey's irresistible force has prevailed through a lifetime of encounters with previously immovable objects. His vision conceived and his energy created a succession of projects, programs, and institutions dedicated to solving educational problems through the constructive use of measurement. During World War II, he led such projects as the development of the Army-Navy College Qualifying Tests through the College Board. He served later as Secretary of the College Board.

He was instrumental in creating Educational Testing Service as an agency that would serve all age levels and would make research its cornerstone. One of his first acts as the founding President of ETS was to initiate the Psychometric Fellowship Program, which through the years has enrolled an astonishing number of research leaders in measurement. Through ETS he has played the key role in the creation of a host of testing programs: from the Sequential Tests of Educational Progress in the early grades, through the first Selective Service College Qualification Test, to the Law School and Graduate Management School programs. Meanwhile, he provided the vision and driving force behind innovations as diverse as the development of a pioneering test-scoring machine and character-recognition device, research in early learning, personality measurement and guidance, longitudinal studies of growth, and college credit by examination. He made three

expeditions to the Soviet Union to study education and testing there. He became a major figure in American and world education and influential in measurement practices in the United States and around the globe.

Henry Chauncey will always be especially cherished by those who were honored to be his colleagues at ETS. His contributions to them and to the organization he helped to found are a legacy of distinction and are deserving of special recognition.

For his clear vision of the potential contribution of measurement to human development, for his skill in mobilizing talent in the service of measurement and education, for his leadership in shaping this institution, and above all for his sustained commitment to translating creative ideas into effective action, Education Testing Service is proud to present this Special Award for Distinguished Service to Measurement to Henry Chauncey.

Previous Recipients of the ETS Measurement Award

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Educational Standards, Testing, and Access

GREGORY R. ANRIG
President
Educational Testing Service

This past year has been a remarkable one in the history of American education. Prestigious national reports on educational reform have poured forth from government, academe, and the business world. More than 200 task forces, panels, and commissions are studying schools at the state and community levels. Governors and state legislators seem to be in a race to enact legislation to strengthen the public schools. They are passing taxes to pay for these improvements, a unique innovation that makes this drive for educational reform different from many of those in the past!

Higher education has been the subject of a recent call for reform. Secretary Terrel H. Bell's Group on the Conditions of Excellence in American Higher Education issued a report calling for a renewal of excellence in postsecondary education. While not as dramatic as *A Nation At Risk*, it reminds us that educational opportunity is shaped at all levels of learning.

• Excellence cannot be allowed to become the new "code word" for a retreat from equity just when struggles of recent years are beginning to pay off. Thirty years after *Brown* v. *Board of Education*, there is convincing evidence that progress in educational equity is bringing results in student performance.

The most ignored fact in the reports on excellence is that minority students are better prepared for this period of reform than ever before. Let me present some of the findings from the 1984 Accountability Report of the ETS Board of Trustees.

The recent and much-heralded turnaround in declining SAT (Scholastic Achievement Test) scores is the result, in large part, of improved performance by Black and Hispanic students. Between 1976 and 1983, mean scores of Black students on the SAT increased seven points on the

verbal part of the test and 15 points on the mathematical section; for Mexican-American students, the gain was four points on the verbal and 7 points on the mathematical section. The performance of Puerto Rican students on the mathematical section increased two points during the period, although their scores on the verbal section of the SAT declined by six points. For American Indian students, their verbal mean held steady from 1976 to 1983 but their math mean improved by five points. On College Board Achievement Tests, average scores for Black students increased 25 points. While the educational gap reflected in test scores between White students and Black, Hispanic, and American Indian students still exists, it is closing and this is an encouraging fact.

On National Assessment of Educational Progress (NAEP)[1] reading exercises, results plotted by children's year of birth show that differences in performance between Black students and White students have been cut in half—from an average difference of 20 percent correct for those born in 1953 to an average difference of 10 percent correct for those born in 1970. There are similar positive trends in NAEP mathematics assessments and in scores on the SAT and the Graduate Record Examinations.[2]

Nationwide Gains

Improvement in the test scores of Black students is occurring nationwide, with the best gains in the Southeast where school desegregation has had its greatest impact. Black children in the Southeast have improved the most on National Assessment reading exercises, while the greatest gains on National Assessment mathematics exercises were by Black fourth graders in the Southeast and Northeast, as well as by those in disadvantaged urban communities. On the SAT, test scores of Black students have improved in every region of the country, with an above-average increase in the Southeast.

Many factors have contributed to the improved performance of Black children, including the desegregation of schools. Contrary to fears voiced by those who opposed court-ordered desegregation, gains in minority student achievement have not been at the expense of the achievement of White students. Since 1980, the performance of White students on NAEP exercises and on the SAT has improved, but not as much as that of minority students.

Another positive sign, and one that bodes well for the future, is that the participation of minority students in demanding academic courses, especially in mathematics and the physical sciences, has increased significantly. Since 1976, in only a seven-year period, the average number of mathematics courses taken in the high school increased 15 percent for Mexican-American students, 14 percent for American Indian students, and 12 percent for Black students; the increase for White students was eight percent. The average number of courses in the physical sciences increased 21 percent for Black students; the increase for White students was 13 percent.

The number of minority students taking Advanced Placement Examinations, which are developed and administered by ETS for the College Board, has increased dramatically. For Mexican-American students there has been an increase of 152 percent in the last five years. For Black students the increase has been 82 percent, for American Indian students 80 percent, and for Puerto Rican students 70 percent. For White students the five-year increase has been 65 percent.

These improvements in test performance and in enrollment in rigorous academic courses make it clear that minority students can and do achieve when they have access to high-quality instruction and the educational support and encouragement they need.

The improvement in minority student performance on nationally standardized tests is encouraging, but important educational deficiencies remain and must be addressed. The performance gap between minority and White students is narrowing, but it still exists. While minority performance in basic skills has improved significantly, test results indicate that minority *and* White students have serious weaknesses in the so-called higher-order learning skills such as problem solving and written expression. Great improvement is evident in the test performance of 9- and 13-year-olds, yet 17-year-olds from minority groups have not improved nearly as much on National Assessment samples of the total eleventh-grade population (including those who do not plan to attend college).

Differences in Test Results—a Force for Improvement

All concerned with improving education can take heart from positive improvements in the performance of students from minority groups.

but this optimism must be tempered by the realization of how much still must be done before educational equity is a reality in the United States.

Too frequently there is an assumption that, if students from minority groups do not perform as well on a test as other students, the test must be biased against them. First, one must determine if indeed a test is biased. But if it is not, then to attack testing because of unfavorable results is to attack a potential force for improving those results.

Throwing away the thermometer does not cure a virus. So it is with the problem of unequal educational opportunities. We believe that publishing test results by race and ethnicity, nationally and in states and localities has helped close the gap. Such information helps to focus public attention on unequal opportunities and to keep public pressure on these inequities until they are corrected.

Minority students are demonstrating that they can do well on tests if they are given better educational opportunities. The encouraging results reported above offer hope that better educational opportunities are at last becoming a reality for many minority children. These results support the continuance of federal programs for the educationally disadvantaged and the earmarking of additional funds in state education-aid formulas for areas with high concentrations of educationally disadvantaged students.

Conclusion

It remains to be seen if this drive for excellence will protect and enhance the hard-won gains in educational equity of the last 30 years. Experience counsels eternal vigilance.

A conservative mood prevails across the country. The voices for justice and equality do not muster the numbers and vigor of the 1960s. But students from minority groups again are helping us, this time not by courageously facing angry mobs but rather by demonstrating in cold, hard fact that they will learn more and learn better when given the same educational chance that in too many places is still reserved only for some.

This improving performance sets the real challenge to be met by educational reform in the 1980s. In a democracy, true educational excellence is possible only when there also is true educational equity for all.

I hope that the issues raised at this conference will help to focus the public's attention on these dual goals during this exciting period of educational reform in the United States.

References

1. The National Assessment of Educational Progress is funded by the National Institute of Education and administered by ETS. Knowledge, skills, and attitudes are assessed on a national sample of 9-, 13-, and 17-year-old students. NAEP findings are disseminated to Congress, state, and local government leaders, educators, and the public at large.
2. Lyle V. Jones, "White-Black Achievement Differences: The Narrowing Gap", Address to the Federation of Behavioral, Psychological and Cognitive Sciences, Washington, D.C., November 18, 1983, pp. 3, 6, and 7

Improving Access and Standards: What Kind of Education Do We Want?

BENJAMIN F. PAYTON
President, Kresge Center
Tuskegee Institute

Improving access and standards—what kind of education do we want?

This is a very difficult question to answer. We are not known for having any deep consensus about educational standards in America. Indeed, we tend as a people to be suspicious of those who would seek to impose uniformity on us, even when it is in the interest of quality or of equality.

In recent years, however, we have benefited from several reports that focus the subject now before us. In the process, they have given us useful information, analysis, and some concrete recommendations about the problems that confront American education. Cogent issues have been raised recently, but I would go back a bit further than the publication of *A Nation at Risk*. More than five years ago, many of these same concerns were discussed by James Perkins in *Strength Through Wisdom*, a report of the President's Commission on Foreign Language and International Studies. *Strength Through Wisdom* is a very important report to have before us as we think about standards and as we consider the kind of education we want.

The report that has gained the most attention and has spoken with the most eloquent and vivid language is, I believe, *A Nation at Risk*, by the National Commission on Excellence in Education, appointed by Secretary Bell. It was this report that—more than anything since the launching of Sputnik in the 1950s—alerted Americans to the problems we face in education. This report uses, interestingly enough, the metaphors and the language of battle in order to dramatize our problems. It speaks about the danger we face as though we were about to

do battle with a foreign adversary. I find it somewhat ironic that sometimes in American life it requires that kind of literary imagery in order to make us sit up and pay attention.

Another major publication is the report on American high schools *(High Schools)* written by Ernest Boyer, head of the Carnegie Foundation for the Advancement of Teaching. In my judgment, this is probably the single most comprehensive report, the clearest, and the one that presents the most concrete recommendations. Finally, one must mention *Educating Americans for the 21st Century*, the report of the National Science Board's Commission on Precollege Mathematics, Science, and Technology, on which I served. No one can read this report without becoming appalled at the degree to which this nation's children have been permitted to complete their precollege education with so little knowledge of math, science, and technology.

These reports give us a focal point and provide us with information and analysis that I think are critically important at a time that is radically different from 1957, when Sputnik was launched. The whole context of world events has changed; many demographic, social, and cultural changes have occurred in our own society and have made it a very different historical period in which to consider the issues of access and standards today. For example, the composition of schools has changed radically since 1957. In most of the large urban school systems of our society, a growing majority of students are members of minority groups—largely Black or Hispanic. So, in order to talk about improving access and standards, we must become quite specific and focus on access for *whom* and standards for *what*.

These reports have presented us with useful analyses and information about the subject. During the past several years, we have heard much about raising academic standards, about improving test scores, about lengthening the school year, and about many other issues that need resolution. Today, for example, many school people seem to be more concerned about how long students stay in school than they are about what standards students should follow, and what students should know when they leave school. To quote Ernest Boyer, "We also heard a lot about adding another unit of science, another unit of math, or another unit of English to the required core. But we know very little about the content of education, about what it means to be an educated person." This is one of the most difficult issues we face as a society in trying to gain some deeper consensus about the kind of education we want.

American Education Is Unique

As I indicated earlier, our history has helped to make us a people who are suspicious of efforts to impose uniformity of any sort, whether this is in the interest of increased quality or equality. In part, that is a reflection on our—as some historians call it—rejection of Europe; others think that maybe we have followed Europe too closely. But it is certainly a rejection of the kind of narrow elitism that has characterized education in other parts of the world. There is a deep concern that education in this country is unique and that it must remain so. One of the major tasks of education is to continue to provide mobility, equity, and opportunities for a better economic life. But at a time when it is quite clear that America's capacity to compete with other nations is at stake, in markets that are increasingly international, it is also evident that the future welfare of the country, the wealth and security of the nation, economic growth, all of these are in significant ways dependent upon the *quality* of education we receive, as well as upon those who receive it. It *is* very important that we focus on the issue of the content of the education we seek.

In 1954, with the *Brown* v. *Board of Education* decision, we were confronted with largely a political/constitutional and moral issue. In 1984, few people—all too few—see the issues before us as having essentially a moral element; indeed, the emphasis on the importance of education for economic growth, for national security and for international competitiveness tends to shut out considerations of other dimensions of the problems before us. The emphasis on education as a means for economic growth is entirely appropriate, and it is very important. It may be the only way we can get the attention of large numbers of policy makers and political leaders as we seek to improve education. But in the process, those of us who are committed to education as a matter of cultivating minds, hearts and spirits; those who are concerned about students; those who are concerned about the climate of the classroom; those who are concerned about the quality of what is taught and learned stand to lose a good deal, unless we can turn the concern for economic growth—for the wealth of the nation—to consideration of the larger problems and issues that confront young people.

Ernest Boyer asked, "Where, in the midst of all this discussion about adding on courses, is the student; where is the joy of learning; where is

the concern for the person?" I don't know that we can stir, motivate, and move large numbers of students unless we can find ways to reach them deep within the recesses of their mind and spirit. I don't think that education is simply a matter of moving young people through courses and across curricula. Rather, in some very important way, it is a matter of human interaction, which requires a sense that, in dealing with young people, one is dealing with personalities that require nurturing, that require a challenge. The emphasis on education as a resource that assists the growth of the wealth of nations and helps economic development is important, but the most important question is: How can we make this work so that students benefit and so that we can get some new consensus about what it means to be an educated person?

The Getting of Wisdom

One of the problems that has been around for some time and will undoubtedly confront us for many years to come was identified by Alfred North Whitehead many years ago. It is a problem he identified in his famous book *Science and the Modern World* and characterized as the "professionalization of knowledge." The growth of the modern world, particularly the growth of modern science, has brought with it the development of approaches to education in which the more one knows about one particular area, the less one knows about, as Whitehead would put it, "the things that are important." And yet, this placing of people in narrow grooves, this locking of people into fixed statuses and duties, this kind of strategy might have worked in older societies; indeed, says Whitehead, it was a "Godsend." But, "in the future," to use his words—and I would add in the present as well—"it is a public danger." The reason is that there is no groove that is adequate, no status, no particular approach that covers all the complexities of human life. As we consider the matter of what kind of education we want, I hope we will look very hard at the whole issue, which used to be summed up in a word that goes back to classical Greece and Rome—*wisdom*. As Whitehead saw it, wisdom is the fruit of balanced development. It is this balanced growth of individuality with social need that should be the aim of education.

I don't know how many Americans are interested in that kind of goal for our schools and colleges. The focus on careerism, on voca-

tions, the rightful worry of young people about whether there will be jobs for them when they get out of school—all of these are taken as reasons why increased specialization is justified. I would argue that, precisely because employment opportunities may well be more limited in the future than they are now, it is more important then ever to develop in our schools young people who have the capacity to change, as well as flexibility and an understanding of connections between disciplines and across curriculums, and between curriculums and the world of work. What I am getting at, in other words, is that element that Whitehead calls balanced development, which makes for wisdom.

Whether Americans can see that view will depend heavily on the kind of leadership presented by those who are in positions to be influential and to lead in the formation of public opinion. Unfortunately, there's not too much reason to be sanguine. The very contours of the economy and the culture that results from the constraints of the 1980s seem to press people in a direction that is almost the exact opposite from what Whitehead, Boyer, and many others—including myself—recommend. Precisely because the times are difficult and because so many voices come at us from a communications media filled with contradictions and superficiality, schools and colleges need to focus on the elements that enable our young people to make sense of where we are and where we must go.

The Educated Person

What kind of standards do we need; how can they be improved; what kind of education do we want?—all of this hinges in some important way on what we mean by an educated person. To many who have worked on the reports cited above, this means a concern for new rigor, for greater emphasis on quality in our schools. I applaud that. Take, for example, the essential goals of precollege education that have been presented by Dr. Boyer and the National Science Board Commission. Boyer places the mastery of language first, and I think he is absolutely correct. Mastery of language—writing, speaking, listening—is the most basic liberal arts discipline. It is essential for all students in elementary and secondary school. I would even argue that mastery of language should be the continuing concern for colleges—and, as I recall my own graduate school days, it should probably be a continuing concern for graduate schools as well. All young people

must have the capacity to think clearly and critically; the capacity for communication is, after all, essentially what makes us human. Human beings are those who have the ability to handle, to manipulate complex symbols, and to address one another at many different dimensions of our lives.

When I speak of mastery of language, I mean mastery of the *English* language. This is not to denigrate the study of foreign languages, because virtually all the reports acknowledge its importance—especially the first report I referred to, *Strength Through Wisdom*. But here I am talking about mastering the English language; and I want to be very clear that I do not mean Black English or Hispanic English. I am talking about the mastery of standard English as a requirement for every student. Only when this is given priority can we hope to improve access and standards.

Second, but of almost equal significance, is mathematical, scientific, and technological literacy. The best recent analysis of this issue was done last year by the National Science Board's Commission on Precollege Education in Mathematics, Science and Technology. Entitled *Educating Americans for the 21st Century*, this report demonstrates the increased importance of competency in these fields and reveals, at the same time, the urgent need to reverse current patterns of achievement, especially among the nation's minority youth. No report states more clearly than this one that "Excellence and elitism are *not* synonymous," or that "affirmative action" is *not* to be equated with "mediocrity." On the contrary, this report argues eloquently that "we must recognize the potential for excellence in a diverse student body. Equality and quality are not mutually exclusive!"

Third, in a world that is rapidly becoming a global village, it is necessary to ensure that our young people—whether in schools or in college—learn something about themselves through the cultural heritage that has been transmitted to us and do so by focusing on those "consequential experiences," as Boyer calls them, that all people have and that make us human as we struggle with the dilemmas of our lives. Understanding others is necessary, I would say, precisely in order to understand ourselves better. If this democracy is going to succeed, if education is going to be concerned with equality as well as with quality, it is going to take systematic efforts on the part of this nation to help our young people learn what it means to live in a democracy, to understand the various ways democracy may develop in other cultures, and to know the unity in diversity that characterizes

such a system of government. And so, what can be summed up as cultural literacy is the third basic requirement.

Fourth, preparing for work and for further education is essential. The concept that the fundamental function of education is symbolized in diplomas and degrees must be shelved so that all of us understand that education is a lifelong task. Continuing education and the opportunities for continuing education for disparate groups of people must be developed.

And, finally, there is our civic duty—which I have already touched upon in some ways—the concern for the responsibilities of young people as members of a society that requires us to work together and to be sensitive to duties and obligations as well as to rights. Civic life cannot exist in pure freedom nor can individual health be sustained on liberty alone. Civic well-being and individual satisfaction both require an appreciation of self-discipline and of our dependence on one another. Somehow we must find a way to teach this without the heavy-handed imposition of too much rigidity.

Improving educational access and standards depends heavily on whether we can reach some consensus about what kind of education we want and need as America approaches the 21st century. I have deliberately not suggested particular courses that are required because I don't know that we know what they are. Great emphasis now is being placed on computers, and surely that is a revolutionary tool for learning; but I doubt whether anyone would argue that they are more important than writing, than understanding how to read and to think quantitatively and analytically. Computers are probably just the latest in the bag of tools that humankind has acquired for dealing with its life and work. But these newest of tools are certainly revolutionary enough to warrant our deep concern about the growing division in society between the technologically literate and the technologically ignorant. The "evidence" is already in—to the rich go the computers; to the poor, the high school instructors who teach them about computers they can never afford. This is a damning indictment that we as a society will not prove false unless we commit ourselves now to strive toward the twin goals of equity and excellence in American education.

The Quality Education Movement: New State Standards and Minority Access to College

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I remember the days when quality education for American students or the lack it was a topic so removed from everyday life that headlines on educational issues were almost inconceivable. If such issues did manage to grab a headline, they were of interest for a day or two only, and if they lasted any longer, they were usually tied to a much more titillating topic, such as fights over money, power, or politics.

It's hard to believe, but that state of affairs existed a scant year and a half ago. All that has changed, of course. Now it's hard to pick up a newspaper and not find some evidence from a new national study about the deplorable state of public education in our nation or about the efforts on the part of just about everyone to set our educational system right. If it's not the president or the secretary of education decrying low achievement or SAT scores, it's a governor or state college president saying that we will no longer stand for anything but first-rate colleges, no matter what the cost. The list of actors in this new educational drama has increased to include state legislators and state superintendents, university presidents and professors, as well as public and private research groups who are doing studies on everything from student attitudes to teacher education and making suggestions for dramatic and far-reaching policy changes in their fields of study.

The scrutiny that many aspects of education are undergoing is long overdue. The setting of educational reform high on the national agenda has created a new level of concern and interest from all sectors of society, increasing the likelihood that something will finally be done to improve educational opportunity for American students.

As in all things, however, there's a down side to this story.

Events have moved so quickly in this new drama that answers to problems are being developed and implemented almost as quickly as the problems are being articulated. Pressure on public officials to devise reforms and to restructure the basic operation and policy of schools and colleges has inevitably meant that the needs of all students could not be taken into consideration. Many of the national education studies have focused on the vast group of students in the middle of the achievement range and in so-called average schools. Few have looked carefully at the schools attended by minority students or addressed the special needs of those students. Thus, the students furthest from the standards and in greatest need of help are the ones whose problems are being examined least carefully. These are the students who are being shunted into a corner during this period of educational housecleaning and who have the most to lose from the quality education movement.

Make no mistake. I am strongly in favor of standards to improve education. Our children—Chicano, Latino, Black—attend the very schools that are in need of the greatest reform. Our students—among all others—are the ones with the lowest levels of achievement. Theoretically, we have the most the most to gain. Unfortunately, despite the fact that quality and equality are not mutually exclusive or naturally at odds, the quality education movement, as it is now being implemented, threatens to create yet another barrier between minority students and a quality education.

I'd like to review briefly the types and extent of changes that are occurring in state standards and the probable impact of these changes on minority students and talk about the forces that are driving those new standards. I'd also like to discuss the implications of the quality education movement on the role of public universities, the status of minority group members, and the problem of inequity in our society.

Raising High School Graduation Standards

In response to many of the recent reports on the quality of elementary and secondary schools, high school graduation standards are being increased in many states throughout the nation. A startling forty-eight states are considering legislative proposals to increase high school graduation requirements. Thirty-five of these states have already approved the new requirements, and many are already in effect. These high school requirements take many forms, primarily calling for high

school students to take a particular pattern of courses or to be able to demonstrate certain proficiencies on written examinations at some time in their studies. Curriculum requirements not only stipulate the number of courses in the various disciplines, but also, in many cases, the specific courses. Generally, they demand that students take three or four years of English, two or three of mathematics, etc. There are, however, vast differences among the states in the specific courses required.

For example, as a result of Senate Bill 813, California requires that students take three years of English, two years of mathematics, and two years of science, among other courses. Those three years of English and two years of mathematics can consist of virtually any courses, including remedial mathematics courses and business mathematics, as opposed to the more traditional algebra and geometry courses. The newly approved Texas system differs substantially. There, early in their high school careers, students must choose between college preparatory and general or vocational education tracks. Those who choose the college preparatory track must take four years of English, three of mathematics, and three of physical science, must meet strict guidelines as to the courses to be taken within each area, and upon successful completion, are eligible to earn an academic high school diploma. Those who select the general or vocational tracks must meet fewer requirements but earn only a general education diploma.

Beyond course requirements, states are requiring students to demonstrate skills in the basic areas on competency exams. The competency testing movement has gained such momentum in the last couple of years that 40 states now test their students at various points during the high school years. Nineteen of these states require minimum performance on such tests before granting the high school degree.

Raising College Admission Requirements

Changes in educational policy in response to the quality education movement have occurred at all levels, but in some ways these developments have been most interesting at the postsecondary level. There, the push for more rigorous standards has been aimed not so much at improvement of its own institutions, but primarily at effecting change at lower levels of the educational system. Approximately 35 states are

currently in the process of raising or have recently raised their college admissions requirements. Twenty-two of those states have already approved changes. The vast majority of the changes have required a particular pattern of courses to be taken in high school, while fewer have required higher admission- or achievement-test scores or higher high school grade point averages or rank.

There are almost as many variations in the ways in which new college admissions standards have been developed, discussed, voted upon, and implemented as there are requirements that have already been approved. Of particular interest is the amount of lead time that schools and students have been allowed for preparing to meet the new requirements. Again, Texas and California are good examples.

At the University of Texas at Austin, changes in the admissions policy were developed by a faculty and staff committee, were conditionally approved with virtually no opportunity for outside comment, and tried initially on a pilot basis to examine their effects. Several options were considered by the committee, and projections of the impact each would have on minority enrollments were developed. The option selected admits students graduating in the top quarter of their high school class. Those students below the top quarter must earn SAT or ACT scores of 1100 or 27 respectively.

Another University of Texas campus, at El Paso, is now in the process of reviewing a policy change that would call for all students to have four years of college preparatory English, three years of mathematics—Algebra I and II and Geometry—and three years of science courses, among other course requirements. The faculty committee that developed the recommendations did not feel it was necessary to develop projections of the impact of the changes on students from minority groups, positing that the changes would be of greatest benefit to minority students who up to now may not know what university professors expect in terms of course preparation. If approved, the new requirements would affect all students currently in high school and all who have received high school degrees within the last five years.

Policy changes approved in California differ from both of the Texas examples. At the University of California, two major groups of changes were approved for implementation starting in 1981 and going through 1986. The first set of changes placed much greater weight in the admissions decision on SAT scores and required additional courses for admission. The second set required a third year of mathematics and gave greater weight in developing the grade point average to hon-

ors courses. In both of these, the University faculty senate requested comment on the proposals from educators and concerned citizens but didn't revise the proposals despite serious concerns on the part of many about the impact they would have on Hispanic and Black student access. Similarly, projections of the impact of the proposed changes on minority student access were developed and showed that Hispanic women would be most negatively affected by the second set of changes; but nothing was changed.

Changes for the 19-campus California State University occurred in a much shorter time and with much less opportunity for response by anyone. In that case, within a one-year period, the proposed changes were devised, taken to the faculty senate and the Board of Trustees, and, after quick approval by both groups, were implemented. Needless to say, no impact data were collected nor was any other type of analysis undertaken to look at how difficult it would be for minority students to meet the new requirements.

Serious Repercussions

A great part of the reason that these policy changes have been so quickly developed, passed on, and, in some cases, implemented, is the range of powerful actors involved in this drive for quality education. In many states, these actors have included everyone from the governor, to legislators, to members of governing boards, university presidents, and faculty senates. As the educational reform drive came to national prominence and became a hot topic, everyone felt compelled to join in the debate. Frequently, the only side on which they could be—the only politically tenable position—was on the side of new and immediate changes in standards. To speak for moderation or caution in this drive suggested a fear of or shying away from quality and a willingness to accept low achievement, rubber standards, and a continuing decline in the basic skills abilities of American students. Thus, the drive continued to grow and to take on significant political implications.

Why will these changes in standards have such a serious negative impact on Hispanic and Black students? The significant gap that exists between the new standards and minority student achievement and the quality of minority schools is the first reason. The second reason is the very small amount of time and the few resources that are being made

available to minority students and their schools to gear up to meet the new standards.

How are minority children in elementary and secondary schools doing these days? While there have been important gains from some of the educational programs directed at minority students in the last ten years, the gap between our students and White students is still substantial. We see the beginnings of an achievement gap between majority and minority students early in grade schools. For Hispanic students, the major gaps at that point are in language arts and reading skills, with a relatively small gap in mathematics. As the student moves through the elementary school, preexisting gaps widen substantially, while others appear slowly in all subject areas. The gap in reading and mathematics scores between White and Black nine-year old students is an average of 10 points, but by the time these same students turn 13, it has increased to over 40 points in mathematics and more than 50 points in reading.

As students make their way through the educational system, they are sorted into different classes that reflect their past performance and the school's expectation for future achievement. For Hispanic and Black students, this frequently means the slowest classes in elementary school and the lowest tracks in junior high courses. By high school, where tracking becomes most explicit, the vast majority of these students are in general education and vocational education tracks. In contrast to 40 percent of White and 50 percent of Asian-American students, only about a quarter of Hispanic and only 32 percent of Black students are in college preparatory classes. Many of the minority students in general vocational tracks take few academic courses, in part because they've been so poorly prepared to do so and because they are frequently counseled away from academically rigorous courses. Thus, early in the high school careers of many minority students, the option of attending college becomes very remote. With the ever-increasing course requirements at state four-year institutions, students who are not in college prep tracks by their first year of high school will find it virtually impossible to even consider going on to these colleges. More alarming, many will still lack the prerequisite skills to take the most basic academic courses in high school and, with the new standards, will find it difficult to meet high school graduation requirements.

Tests, both for high school graduation and for college admission, pose another serious problem for our students. Minority student per-

formance on such tests reflects not simply past educational inequity but also a greater degree of anxiety in test situations, greater difficulty on speeded tests, and fewer opportunities to develop good test-taking skills either in school, at home, or through test preparation courses. In addition, because our students tend to score so close to minimum levels of performance, failure on the part of test users to take into consideration the standard error of measurement may result in denial of admission or a diploma to students whose real ability may be above the cut. Thus, increasing reliance on tests for determining who should receive degrees and who should be admitted to college threatens to further exclude our students from educational benefits.

Finally, minority students will find it difficult to meet new standards, because the schools that they attend are frequently the ones with the fewest resources, least able to make the shift to offering substantial numbers of rigorous academic courses, and staffed by teachers and administrators who feel unprepared to respond effectively to the educational needs of poor and minority students. The special needs of these schools have been far from the minds of policymakers as they have set requirements and mandated their implementation from one year to the next. When public colleges and universities make new entrance requirements effective within a year, or even worse, retroactive to previous graduates, the hardest-hit students and schools will be minority ones.

Where does all of this leave us? What are the implications of this movement on life chances for minority students and the role of public colleges and universities in improving those chances? Rather than providing answers, I'll end with some questions that I think begin to get at the answers.

Important Questions To Be Answered

What are the implications on minority students and on our collective perceptions of minorities if the achievement gap between White and minority students grows?

What is the impact on the minority child of seeing herself or himself as hopelessly behind White students of the same age and believing very early on that there's no way out?

What will be the impact on society in general if the future includes a White minority population, educated and powerful, directing the des-

tiny of a population largely ethnic, uneducated, and underemployed?

Finally, what will it mean if our public institutions of higher education become, overtly, institutions that serve an elite group of White students and are virtually inaccessible to Hispanic and Black students, despite the fact that these populations have already assumed more than their share of the tax burden to support these institutions? Are public colleges and universities to become institutions that have no room for these students? Are our students to be denied a chance for training at our top schools because of the ever-increasing drive for higher standards?

I want to emphasize that I am not denying the need for a standard of quality to pervade all of our institutions. I believe, however, that the standard should be based on a thoughtful and careful review of where the problems lie. It should attempt to cure ills, not by superficial requirements, but by the changes that transform our schools slowly and carefully. The changes that are being proposed now will surely do one thing: They will create an ever-widening gap between the achievers and the nonachievers, the haves and the have-nots. Will they ensure a better-prepared student? Will they ensure a more literate minority student? I submit that they will not, and that the only way to ensure those things is by the painstaking process that looks at what is being taught and in what ways and that addresses the question of how teachers should deal with broad differences of ability in classrooms without resorting to the quick and easy tracking that does little for any student.

If these things are to be done, minority schools are going to need additional resources—not just money, but teachers and administrators better equipped to meet the needs of their students and help from postsecondary institutions as well. These things can be done, and it's our challenge to ensure that they are.

Increasing Access and Retention of Minority Students in Graduate and Professional Schools

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It is axiomatic that groups with power will not share their power with unfavored groups without some form of struggle. So it has been in the United States with respect to control over the power structure of graduate and professional education. As in any situation involving dominant and minority groups, it is the dominant group that has controlled resources, established the rules and conditions that determine who shall have access, who shall be retained, and who shall be admitted to the world of work. It is also axiomatic that those in power may make alterations and adjustments to established rules and procedural norms whenever they deem it in their best interest to do so. A conclusion of "best interest" may, in fact, be influenced by minority group behavior, demands, and sustained pressure.

Beginning with the Murray case in Maryland in 1935, minority groups have continually sought equal access to graduate and professional schools. A brief review of legal history reminds us that some states responded to demands of the sort made by Murray for admission to a state-controlled school of law by paying minority students to go out of state for graduate and professional education. Mr. Murray was not satisfied with that gesture. He, like Sweatt in Texas, Gaines in Missouri, and Sipuel and McLauren in Oklahoma who followed him, successfully challenged that practice as well as that of establishing makeshift, separate-but-unequal professional schools for minorities or segregating them in roped-off areas in classrooms. By 1950, the United States Supreme Court declared unconstitutional all such demeaning, legally constructed barriers and boundary-maintenance mechanisms against minorities in graduate and professional education.

That was in 1950. The *Brown* decision occurred the year before that; and in 1973, federal judge John Pratt rendered a decision in the *Adams* v. *Richardson* case that ordered the dismantling of dual systems of publicly-supported higher education. In principle, all of these decisions *should* have opened up access. In fact, access was expanded but equal access has never been achieved. That is precisely why in 1984—fifty years after the *Murray* case and thirty years following the *Brown* decision—we feel such a compelling urgency to redirect our efforts to accelerate access of minority students to graduate and professional schools and to devise strategies for retaining them through the completion of the degrees they are seeking.

The intention of this paper is to demonstrate the continuing need for increasing access and retention of minority students in graduate and professional education. The first part will briefly review past and present conditions of minorities in this aspect of higher education. Illustrations of minority group status will come from the fields of engineering, medicine, dentistry, and selected areas in doctoral studies. The second part will offer specific short and long-term measures for improving access, increasing the overall quality of students, and for increasing the number of minority students who possess graduate and professional degrees.

The Status of Minority Students in Graduate/Professional Education

Minority access to training in high prestige fields or fields that generate high rewards depends, to a great extent, on the positions taken by leaders in both the private and public sectors. Leaders set tones, establish policies, and create a positive climate for action by subordinates. Nowhere is that more evident than in the fields selected for this brief analysis.

Engineering

In 1970, 2.8 percent of all engineers in the U.S. were Black, Chicano or Mexican American, Puerto Rican and American Indian.[1] In 1972, after observing that engineering education was entangled in a "formula for tragedy" occasioned in part by the systematic exclusion of members of minority groups from engineering positions, J. Stanford Smith, then a senior vice president of the General Electric Company, proposed "rev-

olutionary action." Out of that proposal came the Minority Engineering Effort. Further, the corporate structure was now conjoined with civil rights organizations and a few White faculty members in predominantly White institutions to open up access in engineering. Later, a follow-up meeting conducted by the Conference Board led other businesses such as General Motors, IBM, Xerox, U.S. Steel, Dupont, Western Electric, and others to commit themselves to actively support programs for minority students. The special support of the Sloan Foundation led to the formation of the National Advisory Counsel on Minorities in Engineering (NACME) and the Council on Minorities in Engineering. As a result, the pace of recruitment increased and observers noted dramatic increases in the total numbers of minorities in engineering.[2]

First-year minority enrollment increased from 2,987 (5.7 percent of total enrollment) in 1973-74 to 5,344 (7.0 percent) in 1975-76 to a high of 11,116 (9.7 percent) in 1981-82. For the past two years, the absolute number of minority students in first-year classes in engineering has declined. Last year, 1983-84, while the number had fallen to 10,603, the percent held steady at 9.7 percent of first-year enrollment. These figures include only Black, Hispanic (but not those enrolled at the University of Puerto Rico), and American Indian students.[3] In 1973, the 2,130 Black first-year engineering students represented 4 percent of all first-year matriculants and 69 percent of minority enrollment. They were followed by Hispanic students with 862 or 28 percent and by American Indians, whose 67 students comprised a mere two percent of minorities enrolled in engineering classes. By 1975, the number of Black students entering engineering colleges climbed to 3,840 (5.1 percent), while the number of Hispanic students rose to 1,384 (1.8 percent); but the number of American Indians almost doubled to 120 first-year students. During the peak year of 1981, some 7,015 Black, 3,689 Hispanic, and 412 American Indian students matriculated for the first time in schools and colleges of engineering and constituted 9.6 percent of first-year enrollees. The downturn in first-year enrollment among minority students in engineering observed over the past two years has been found only among Black and American Indian students. First-year enrollment of Hispanic students has continued to increase every year since 1973. They now represent 37 percent (3885 of 10,603) of the first-year minority students.[4]

Not unexpectedly, the total number of minority graduates in engineering increased markedly between 1973 and 1984. The absolute

number with engineering baccalaureates almost tripled, rising from 1,255 in 1972-73 to 3,542 in 1982-83.[5]

The problem of declining enrollments of Black and American Indian students in first-year classes is further exacerbated by the maldistribution of minority students and their concentration in a relatively small number of institutions, coupled with a retention rate of only 40 percent or worse in many institutions. Thus, it is evident that there is a real need to increase both access and retention of minority students in engineering in 1984.

Medicine

As was the case with engineering, when the medical establishment responded favorably to the pleas made by civil rights groups and minority students to open up access to medical colleges, minority student enrollment in medical colleges increased. The Association of American Medical Colleges, the American Medical Association, and the National Medical Association began to exercise determined leadership in the late 1960s to stimulate greater participation of individuals from minority groups in medicine. Early on, they endorsed far-reaching resolutions that emphasized significant changes in the opportunity structure and enunciated new policies with respect to recruitment practices and the target population for enrollment in medical colleges. They encouraged establishment of minority-affairs officers with diverse functions and fostered the acquisition of funds and support from foundations and philanthropists such as the Robert Wood Johnson and Alfred Sloan Foundations and others. They obtained grants from the U.S. Office of Economic Opportunity at a time when the federal government, its leaders, and its agencies could be counted on to support the most fundamental principles of social justice and equality of opportunity in higher education, employment, and housing.[6]

The AAMC organized- and the Sloan Foundation-funded Task Forces on Minority Student Opportunities in Medicine were among the first major steps taken toward broader inclusion of diverse students in medical colleges.[7] From 1970 onward, the number of minority students increased significantly until the *Bakke* case began to wind its way through the various courts toward an ultimate decision by the U.S. Supreme Court in 1978.

An examination of the 10-year data from 1978 to 1983-84 is particularly instructive with respect to the access of members of minority groups to medical colleges. In 1974, some 3,174 individuals from un-

derrepresented minorities applied to medical colleges. Of that number, 1,406 were accepted (for an acceptance rate of 44 percent). Of that number, 1,282 actually enrolled in first-year classes. In 1976, while the number of applicants from underrepresented minority group actually increased slightly to 3,323, the number of acceptees dropped to 1,313 and the number of new entrants rose by only nine.[8]

The absolute number of applicants from underrepresented minority groups increased somewhat steadily from 3,174 in 1974-75 to a peak of 3,541 in 1982-82. However, applicants declined in both 1982 and 1983. In 1983-84, only 3,440 persons from underrepresented minority groups applied to the 127 U.S. medical schools.[9] The acceptance rate from underrepresented minority groups has been relatively stable at 43 percent of the applicants, except in the two years immediately preceding the Bakke decision, when the acceptance rate fell to 40 percent. However, the representation of students from minority groups among the total number of persons accepted into medical colleges dropped from 9.4 percent in 1974 to 8.2 percent in 1978 and stood at 8.5 percent in 1983-84.[10]

The percentage of Black students among first-year medical students has declined almost annually since 1974, when Black students represented 7.5 percent of first-year students. In 1983-84, Black students comprised only 5.9 percent in their group. The percentage of American Indian students has fluctuated between 0.3 and 0.5 percent of all first-year students during the same period. In 1983-84, American Indian students represented a mere 0.4 percent of first-year enrollment. Similarly, the percent of Mexican-American students has never exceeded 1.8 percent of first-year enrollment. It climbed from only 1.5 percent in 1974 to 1.6 percent in 1983-84. The number of students listing a Mainland Puerto Rican identity reached an all-time high of 0.7 percent of first-year enrollment in 1982-83 but dropped to 0.6 percent in 1984.[11] There is one significant caveat in regard to the first-year enrollment figures. They include all students who repeat the first year; thus, the actual number of new entrants is somewhat smaller when this disaggregation is made.

U.S. medical schools have a national attrition rate of 2.9 percent and a first-year repeat rate of 3.5 percent. However, the first-year repeat rate for minority students is significantly higher than the national norm. For example, the current repeat rate for Black first-year students is approximately 17 percent of all Black first-year enrollees; it is 9.3 percent for Mexican-American students; 8.2 percent for Ameri-

can Indian students; 6.0 percent for Mainland Puerto Rican students and 15.1 percent for all underrepresented minority groups combined. In effect, students from underrepresented minority groups are about three times more likely to repeat the first year of medical school than the 3.5 percent represented by the national norm. Although the repeat rate of these students drops dramatically in the second, third, and fourth year of medical school, students from underrepresented minority groups remain more than twice as likely as non-minority students to repeat these years of medical education.[12]

Evidence provided by the AAMC shows that minority and non-minority students who were retained in medical school scored significantly higher on the Medical College Aptitude Test (MCAT) than did those students who were not retained. While the total GPA of retained minority students was slightly higher than that of non-retained minority students, the total GPA of non-retained non-minority students was almost the same as that of retained non-minority students. Among other things, these findings suggest that minority students with comparatively low MCAT scores will often require special assistance and support systems to enable them to perform well during their medical school years.

As a result of problems experienced in attaining medical education, by the fourth year, 11 percent of Black first-year enrollees, nine percent of Mainland Puerto Rican students, seven percent of Mexican-American and two percent of American Indian students have dropped out of medical school.[13] Among the reasons cited by minority students who decide to leave medical school are: personal and/or family difficulties (41.0 percent); academic difficulties (38.6 percent); financial difficulties (7.2 percent); and health reasons (8.4 percent). Minority students are significantly more likely than non-minority students to cite these factors as the leading causes of their decision to withdraw from medical school.[14]

Nevertheless, the actual number of minority candidates who are graduated from medical colleges has increased since 1974. The 798 minority M.Ds. graduated in 1974-75 comprised 6.3 percent of the 12,716 M.Ds. produced that year. Black graduates, with 638 M.Ds., constituted 5.0 percent of the total number of M.Ds. and 80 percent of all such degrees received by minority students. By 1982, the 1,114 minority students who received the M.D. equalled 7.0 percent of the 15,985 M.D. recipients. Again, the 763 Black graduates represented 4.8 percent of the total number of M.D. degrees conferred but only 69

percent of M.Ds. received by minority students. Importantly, the absolute number of Mexican-American graduates more than doubled between 1975 (110 students) and 1982 (255); similarly, the absolute number of American Indian M.D. recipients also more than doubled from 22 to 45, while the number of Mainland Puerto Rican M.D. graduates almost tripled from 28 to 81 during that period.[15]

Although the absolute number of underrepresented minority graduates from medical schools has increased, it is evident that minority groups remain inadequately represented in the medical profession. Despite admonitions that the nation may be producing an oversupply of physicians, that is clearly not the case with respect to underrepresented minority groups, who comprise about one fifth of the national population but only one fourteenth of the M.D. degrees conferred annually.

Dentistry

The patterns observed in the stance taken by the professional associations in engineering and medicine were somewhat duplicated in dentistry. First, in 1965, the American Dental Association urged its constituent and component societies to drop all barriers to membership based upon race and ethnicity. The National Dental Association and the American Association of Dental Schools augmented the efforts of the major civil rights groups to advance recruitment, enrollment, and graduation of underrepresented minority students with degrees in dentistry.[16]

Although applications to dental schools have declined for seven consecutive years, the absolute number of minority first-year enrollees almost tripled from 307 in 1970 to 873 in 1983. In 1983, minority students comprised 16.5 percent of the 5,274 first-year dental students. Again, these students are unevenly distributed, and the representation of a particular minority group within a given institution often reflects the concentration of that minority group in the total population of the area in which the dental school is located. However, the problem of underrepresentation or lack of access is evidenced by the fact that in 1983, one fourth of all dental schools in the U.S. enrolled from zero to five minority first-year students, and almost half of them matriculated from zero to 10 minority students in the first-year class. The record of some dental schools, not unlike that of some schools and colleges of engineering and medicine, is nothing short of atrocious with respect to the recruitment and enrollment of minority

students. As is the case with engineering and medical schools, the historically Black colleges with such schools enroll from 18 to 40 percent of all Black students in first-year classes. No traditionally White institution graduates the number of minority dental graduates that Howard University does. Only four largely White institutions (University of Pacific, UCLA, USC, and the University of Maryland) equal or surpass the 22 minority graduates of Meharry's School of Dentistry.[16]

Graduate Enrollment

The status of minority groups in graduate education is complicated by the huge numbers of fields of study that would ordinarily fail to attract students from minority groups even if larger numbers of minority students entered graduate schools. Many graduate schools and several graduate departments have been slow to admit minority students beyond token numbers, if at all. Further, certain fields have been unattractive to minority students for doctoral studies. In general, for the past several years, minority students have comprised only about eight percent of graduate enrollment. In 1978, for example, the 61,923 Black students comprised 6.2 percent of total graduate enrollment of 1,076,980. By contrast, the 24,183 Hispanic students represented a mere 2.5 percent. The National Center for Educational Statistics includes Cubans, Mexican Americans, and Puerto Ricans on the island and the mainland in the category of Hispanic. If the Cuban and island Puerto Rican graduate students were removed from that category, the proportion of other Hispanic students would fall significantly. The 3,786 American Indian graduate student constituted 0.4 percent of total graduate enrollment.[18]

In 1980, although the total graduate enrollment increased slightly to 1,102,373, the absolute number of Black graduate students dropped to 60,138 or 5.5 percent. The number of Hispanic students rose to 29,372 or 2.7 percent (an increase of 5,000 students), while the number of American Indian graduate students increased by approximately 100 to 3,882 but remained at 0.4 percent of total graduate enrollment.[17]

By fall 1982, the number of Black graduate students had dropped precipitously to 54,807 or 5.0 percent of all full-time graduate students. The number of Hispanic students stood at 29,870 (2.7 percent) and the number of American Indian graduate students reached 4,009 or 0.4 percent.[19] While the enrollment of all minority students remains comparatively low in graduate schools, the absolute numbers and proportions of Black graduate students continues to fall while the

numbers of other minority groups are rising slightly.

This disparity is further evidenced in the paucity of minority students who receive doctoral degrees each year. Again, data will show that over the past decade, considerably larger numbers of minority students received doctoral degrees. Nevertheless, we need only examine data from 1983, the last year for which complete information is available, to understand the enormity and complexity of the problem at hand. In that year, of the 25,564 doctorates conferred on U.S. citizens, 80 (0.3 percent) were received by American Indian students; 1000 (3.9 percent) were awarded to Black students; 127 (0.5 percent to Puerto Rican students; 179 to Mexican-American students (0.7 percent) and 298 (1.1 percent) to students listing another Hispanic background. More than half of the doctorates earned by Black students (516) and American Indian students (44), and more than 40 percent of those awarded to Mexican-American (82) and Puerto Rican students (47) were in the field of education. By contrast, only one American Indian, six Puerto Rican, four Mexican-American, and 29 Black students received a doctorate in engineering. Eight Mexican-American, nine American Indian, 10 Puerto Rican, and 32 Black candidates received doctorates in all of the physical sciences combined. This profile becomes even more dismal when we realize that four was the total number of doctorates awarded to minority students in computer science; 31 in chemistry, 15 in physics, and 20 in astronomy.

In the life sciences, a total of 10 doctorates went to minority students in Biochemistry; 0 in Bacteriology; 0 in Anatomy; 0 in Embryology; 0 in Endocrinology; four in Immunology; four in Microbiology, and six in Human and Animal Physiology. By comparison, of the 6,055 doctorates conferred in the social sciences, students from minority groups earned 166 or 2.7 percent of them.

This recitation of dismal statistics graphically demonstrates the persistence of a problem that we cannot wish away. Minority candidates continue to find it difficult to enter and be graduated from graduate and professional schools. Now, the most salient question of the moment is: What can be done to ameliorate this problem?

Increasing Access and Reducing Attrition

The findings in two of this writer's research projects published as *Mainstreaming Outsiders: the Production of Black Professionals* and

Networking and Mentoring revealed important correlates of recruitment, enrollment, and graduation of Black students in graduate and professional schools.

A stepwise regression analysis showed that the most persistent, statistically significant predicator of enrollment and graduation of Black graduate and professional schools students was the presence of Black faculty. In other words, those institutions that had Black faculty did a far better job of recruiting, enrolling, and graduating Black students than those that had few or none. Other important predictors of enrollment and graduation were the availability and quality of financial aid and scholarships and the number of professional schools for a given discipline within the State.[21] These findings suggest that much more has to be done to increase the number of minority faculty members in all fields of study, and not only to halt the downward spiral in the availability of financial aid, which helps defray the exorbitant high costs of professional education, but also to increase the amount and broaden the scope of financial assistance to graduate and professional school students. Further, concrete and aggressive action is now imperative to address the issue of quality of training received by minority students so that their entry and survivability in these institutions will be enhanced.

Recommendations for Change

Several short-term and long-term recommendations can be made to help remedy this situation.

1. Strong leadership at federal, state, and institutional levels is essential to demonstrate the renewal of a national commitment to achieving equal access and opportunity for all students. The current mean spirit that pervades America with respect to minority groups has to be obliterated. It is a mockery of the concept of human rights if we cannot provide our own citizens with clear evidence of their right to equal access and opportunity to education.

2. Renewal of commitment may be manifested in a number of ways. First, it will be evident in increased financial aid to graduate and professional education and to higher education in general. Recent studies of financial aid to higher education demonstrate that there

has been little growth in financial aid to higher education; that tuition is rising faster than institutional income; that there has been a decline in federal support in the 1980s including four rounds of student-aid cutbacks in the first two Reagan years; and that there is an expanding need for greater support from the private sector.[22] The private sector might wish to take its cue from the McKnight Foundation, which has recently made available some $15 million to finance substantial fellowships to minority/disadvantaged students who wish to receive doctoral training in Florida and who will agree to teach in Florida institutions upon receiving their degrees. After one year, some 27 students are enrolled under this program.

Eligible minority students should also be encouraged to take advantage of scholarships and fellowship programs offered by the McKnight, Robert Wood Johnson, and other foundations.

3. We can identify potential candidates for graduate and professional school among minority students now among the college sophomore student cohort. This step first involves sensitizing college professors to the need for more minority graduate students in these areas, and to the fact that they have a role as well as a moral responsibility to assist in the identification and nurturing of this talent. Once this talent has been identified, it can be encouraged throughout college into and through the years of graduate or professional education. Faculty members must transform the entire mentoring and networking system so that more minority students can benefit from all that a true mentor can offer a protégé and the protégé may, indeed, be someone who is not necessarily of the same sex, race, or religion as the mentor. (In this writer's study of networking and mentoring, it was revealed that only one in eight Black students had the benefits of a true mentor during graduate or professional school study).[23]

4. We can begin now to rethink the weight assigned to standardized tests and establish safeguards against their abuse and utilization solely as an instrument for exclusion rather than as one among several determinants for admission. In this vein, it is incumbent upon us to come to terms with data that show that some students do, in fact, benefit from systematic studying of standardized tests prior to their taking them, whether we label this process "coach-

ing," "drilling," or "test preparation." While not disputing the ultimate value of standardized tests, we must come to some agreement on what tests measure, and the special functions they are designed to serve.

5. We can facilitate the transfer of larger numbers of minority students from community colleges to four-year institutions and counsel more of them into academic programs while they are still enrolled in community colleges.

6. We can begin now to accelerate the pace of recruitment. This means more aggressive and sustained action programs that are well-conceptualized, adequately financed, well-staffed, involving representatives form the various disciplines and expanded outreach activities. Effective recruitment is not cosmetic—something that looks impressive on paper but which is never implemented in the manner suggested in the program's literature. It communicates to the potential enrollee that the institution is serious in its desire to have him or her enrolled. It communicates to the student that the institutional climate is hospitable and one that encourages the student to work to full potential aided by a positive learning environment. This situation, in turn, means that institutions will have already done a considerable amount of groundwork—demonstrating that they will not tolerate racism in any member of the institutional community, whether administrator, staff, faculty or student. The institution will continue to persuade faculty members to help students understand that faculty members actually care about the learning process and about teaching as well as research. In a word, students count, too!

7. Institutions can provide or expand study skills seminars in which students enrich their knowledge of note-taking techniques and learn how to take various types of examinations, budget time and financial resources, and defer some of their gratifications.

8. Those institutions that do not already offer Summer Developmental Skills and Enrichment Programs may wish to implement them so that students may take courses, for example, that characteristically cause difficulties. These courses include statistics, gross anatomy, biochemistry, and others.

9. Although minority students, like majority students, are likely to be academically prepared for graduate or professional education, many are not. It would be helpful to strengthen academic support services and counseling programs to assist students in need.

10. Larger numbers of staff and faculty should be recruited among members of minority groups. In turn, especially in instances in which inordinate time demands are made on minority group faculty that reduce the amount of time available for scholarly publications, institutions should give greater weight to the *quality* of their scholarly activities, teaching, and service than relying exclusively on volume of publications.

11. Institutions may target specific departments in which graduate or professional students and faculty from minority groups are underrepresented and persuade them to become more concientious participants in outreach activities.

12. We can now grant a substantially larger number of teaching and research assistantships to minority students. Today, only about one fourth of Black graduate students and approximately one third of both Indian and Hispanic students support themselves in graduate schools with teaching assistantships. By comparison, almost one half of White students receive teaching assistantships. Whereas about one fifth of underrepresented minority students receive research assistantship while pursuing doctoral studies, more than one third of all students support their doctoral studies and gain invaluable experience as research assistants.[24]

Long-Term Activities

In general, overall quality of training must begin early. It begins in the home. It means that parents must take the time to devote special attention to preschool children and to monitor the development of verbal and computational skills. It means that the nation must take immediate steps to alleviate those pressures emanating from the structural conditions of oppressive unemployment, under-employment, and low salaries and wages that impede parental guidance and attention at an early age. Raising income levels and educational attainment of parents

will foster better performance among children throughout the full range of the educational system. We have convincing evidence now that high income levels and high educational attainment among parents of all races as well as larger numbers of academic courses taken in high school correlate positively with high performance on such standardized tests as the SAT.

We should begin early to strengthen academic skills and continue to finely tune and hone those skills throughout grade school, secondary school, and college preparation for graduate or professional school study. This activity may involve collaborative efforts embracing graduate and professional schools, colleges and university departments, individual faculty members, high school teachers, and counselors and parents. We now have a few important models, such as the College Board's Project EQuality, that may be useful guides in such endeavors.

We can begin early to teach reasoning and analytical skills, to inculcate youngsters with excellent study habits, to expose them to the pleasures of reading as a way of improving vocabulary, and to provide them with opportunities to demonstrate confidence, self-assertiveness, and independence.

We know that many graduate and professional schools require an interview as a component of the admissions process. Therefore, we can begin early to help students learn how to conduct themselves during an interview; how to make the best presentation of self, to communicate ideas effectively, and to be both confident and compassionate.

There is a plethora of evidence to show that many minority students do not select certain fields of study because they are not aware of their existence. Graduate and professional schools can create awareness programs that begin to stimulate thought about career options as early as grade school. These programs should be constant, diverse, and involve role models from the sponsoring institutions.

Curriculum reform, where needed, should be extended to elementary and secondary schools as well as to colleges in which minority students are concentrated. All of these types of activities will lead to a better-prepared student, and a better-prepared student will be a retained student, provided that the institutional climate, emotional and physical health, and financial support for the student is satisfactory.

In this manner, we should be able to increase not only the numbers and proportions of minority students who enter graduate and professional schools but the numbers and proportions of those who are

retained and who enter the world of work and make invaluable contributions to our society.

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Successful Black And Hispanic Schools

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In any discussion of successful high schools for Black and Hispanic students, we would do well to look at the academic record of predominantly Black and Hispanic high schools.

But first let me issue a caveat about the topic that ETS has asked me to discuss.

The topic implies that Black and Hispanic high schools are different from majority White schools—even when they are successful.

That is a proposition that need not be accepted without examination. It is true that Black and Hispanic schools as a group generally differ from their White counterparts in terms of location and racial, ethnic, and socioeconomic composition. However, it is important that we not make too much of these differences, since they are overcome by shared concerns.

The recent expression of rising public concern about public education is a case in point. This heightened concern has not been limited to Black and Hispanic schools, but has been a concern about *all* schools.

Much of the criticism and public perplexity seemed to flow from the seemingly inexplicable 16-year decline in SAT scores.

Many critics and parents reasoned that if scores were declining, then high schools were at fault. Many went further and indited the entire school system.

For the last few years, education in America has been bombarded by heavy artillery fire from critics, some genuinely sincere, some journalistically ambitious, some politically motivated.

Whatever the genesis or motive, those of us in public education are grateful because the spotlight has illuminated a much needed and long overdue national dialogue on the role and mission of public education in this nation.

The point I wish to make here is that America was alarmed about the pedagogical quality of *all* of its high schools, not just Black and Hispanic ones. If Black and Hispanic parents were disconcerted that their children were not learning, White parents were sharing that apprehension as well. Parental anxiety was an equal opportunity phenomenon.

The media had a field day. A June 16, 1980 *Time* magazine cover lamented: "Help! Teacher Can't Teach."

Three years later, the March 14 cover of *U. S. News and World Report* showed a teacher sitting on a stool while wearing that abominable cliche, a dunce cap. The magazine raised the question: "What's wrong with our teachers?"

Two months later, the front page of *USA Today* said flatly in its headline: "How USA schools are failing our kids."

By the time the President's National Commission on Excellence in Education had issued its dire warning in April, 1983, *A Nation at Risk*, the tide already had begun to turn. Years of experimental and applied research had begun to pay off. Revived community support of schools and more aggressive administrations had begun restoring confidence in the public school systems. The success stories were few, but they were duplicatable.

In many cities, SAT scores started rising. School systems were reporting significant progress in lowering dropout rates and raising standardized test scores in the lower grades.

But long-held notions are not easily changed. As late as September 1984, a *Newsweek* cover story was still titled, "Why Teachers Fail."

Because I am a teacher first and foremost, I cannot accept so simplistic an explanation to such a complex problem. The task of preparing children to live, to lead, and to contribute to the world in which they live is the responsibility of society and must be shared by schools, parents, the private sector, the public sector, and the community at large.

Is the Situation Changing?

If we are finally witnessing a turnaround, it is because society is no longer as indifferent and the resultant harnessing of parental, political, community, and administrative energies are providing teachers with the public support and respect they need to fulfill their instructional

responsibilities. I commend to your attention the thoughtful *New York Times* essay of Gisha Berkowitz, formerly of the Philadelphia public school system. In her essay, Ms. Berkowitz outlines how our changing society, family structure in transition, and numerous value conflicts create children who are often alone, confused, and without the support and direction they need to function effectively as students in an academic environment.

As you can see, I have chosen to place my assigned topic in a larger educational context. To do otherwise would not only be intellectually dishonest, but devoid of useful information.

Two of the nation's most respected educational critics have focused upon successful Black and Hispanic high schools.

This past April, the *New York Times* annual education supplement ran an encouraging front page headline, "New Look at Effective Schools."

In that article, Edward B. Fiske briefly described the change in our educational climate. Instead of the familiar litany of what's wrong, Mr. Fiske's article pointed out what is good and why it is working.

This supplement contained 10 profiles of schools that work.

Samuel Gompers—a School That Works

One of the schools is the Samuel Gompers Vocational-Technical High School in the Bronx—a neighborhood in which one teacher said it was heroic to live.

But in the five years since Victor Herbert took over as principal, the school's enrollment has tripled. According to the article, school records indicate that the number of those passing the State Regents' mathematics exam increased from 33 percent to 57 percent in one year and that the number of those passing the reading test increased from 79 percent to 85 percent.

Gompers is in the same economically depressed neighborhood as other schools. It has the same Black and Hispanic student body. But there is one difference—a tough and compassionate principal. No high school—all-White or Black and Hispanic—can turn out good students unless it is first guided by a good principal.

Another school highlighted by the *Times* was the 80 percent Black Kenwood Academy on Chicago's South Side.

An important factor in Kenwood's success is the highly motivated

middle-class background of its student body. Kenwood Principal Elizabeth M. Jochner, who has held that position since the Academy opened in 1966, said, "Eighty-five percent of Kenwood's students go on to college."

Central High School Demonstrates Excellence

In Philadelphia, we have long cherished what we believe are some of the nation's citadels of high school excellence. This past January, *Parade* magazine included Central High School as one of the nation's 15 best high schools in a cover story titled, "Now the Good News About American Education." The magnitude of that distinction is best appreciated by noting that there are 16,000 public high schools in the United States.

For decades, Central has been one of Philadelphia's two preeminent high schools—the other being Girls' High. As a graduate of Girls' High, I might even argue that we surpassed our colleagues next door.

But I want to make one point here.

As many of the city's White, middle-class families moved to the suburbs or sent their children to private academies, the quality of instruction and the level of achievement did not decline as Central shifted from a predominantly White to a predominantly Black, Hispanic, and Asian-American student population.

There's a lesson here. When a school reaches that mythic "tipping point" and goes from a White to a Black student population, it need not automatically lose its academic credentials or prestige.

Another prominent educational critic in the media, Chuck Stone, senior editor of the *Philadelphia Daily News*, has steadfastly maintained that inner-city, predominantly Black and Hispanic high schools are capable of excelling, providing that strong leaders, dedicated teachers, and involved parents work together.

The Children Come First

Two years ago when I assumed the superintendency of the school system, I made one vow: The children come first.

Nothing has changed. I am the chief executive officer of a school system with a student body of just under 200,000 children of whom 64

percent are Black and seven percent are Hispanic.

The Philadelphia school district has 33 high schools. They include academic and magnet high schools; vocational and skill centers; inner city, racially isolated, comprehensive high schools; outer-ring, integrated, comprehensive high schools; and alternative high schools.

Each of these types of schools includes several successful high schools.

But I need to be clear on my criteria for successful. A city high school is successful if it succeeds in improving the life chances and the opportunities of its students.

And how do we measure those improvements? The criteria are simple: by the increase in the percentage of graduates; by the increase of the percentage of graduates going on to college and to vocational training; and by the increase in the percentage of graduates who leave school able to function as contributing, productive members of their society.

As I describe these various schools, keep in mind that for the most part their ethnic composition is 50 to almost 100 percent Black and Hispanic. The proportion of low-income students ranges from 12 percent in the academic schools up to 60 percent in the comprehensive high schools.

There are three academic high schools in Philadelphia, two with traditional college preparatory programs and one with an engineering and science emphasis. Each has close to a 100 percent college acceptance rate for its graduates. Each year's graduating classes include national merit finalists, award winners in national competitions, and a high proportion of scholarship winners.

There is a large vocational school in the heart of North Philadelphia that is wholly Black and Hispanic, an agricultural high school in Fairmount Park that is 40 percent Black and Hispanic, and a vocational skill center in a commercial district whose students are 60 percent Black and Hispanic. Virtually *every* graduate of these three schools goes directly to a job, the armed services, or college.

Philadelphia has several comprehensive high schools in predominantly White neighborhoods that have, for many years, accepted minority students who voluntarily transfer to them. Last year their enrollments averaged almost 30 percent Black and Hispanic. The Black and Hispanic students completed their course of study and had at least as much success in finding jobs and getting into college as their White classmates.

Philadelphia has inner-city comprehensive high schools whose student populations are all-Black; Black and Hispanic; Black, Hispanic and Asian American. Among these schools are many that show significant improvement in disciplinary climates, dropout rates, student attendance, faculty attendance, and placement of graduates in college or work. One of these schools was selected in a national study of effective high schools as a example of what can be accomplished in a large urban senior high. Six were honored by the Ford Foundation as "Outstanding High Schools" and received substantial cash awards to help them continue improving their programs.

Finally, we have several alternative and magnet high schools, including the nationally-recognized Parkway Program, *all* of which have a majority of Black and Hispanic enrollment. Every one of these schools sends more than 90 percent of its graduates directly to college, employment, or the armed services. Each of these schools has high student and staff attendance, a supportive instructional climate, and a low dropout rate. One received a grant last year from the Rockefeller Foundation to support its exemplary creative arts program.

I use the performance of high schools in my own district, Philadelphia, to address the question of successful high schools for Black and Hispanic students, and to make this point: There is no such thing as *the* model high school for Black and Hispanic students. There are many models. As evidence I have argued that the Philadelphia School District has at least four categories of high schools and that Black and Hispanic students have been successful in all of them.

Improving Life Chances

But remember that my definition of success is whether high schools improve the life chances of their students. By this definition, it is not so much the academic high schools that are successful for Black and Hispanic students—they have relatively few students from low-income families. Rather, it is the large, inner-city, comprehensive high schools, the skill centers, and to some extent, the magnet and alternative schools that truly make a difference for their students. *These* are the schools whose students come from low-income families, from families in which the parents did not even finish high school, let alone go on to college. These are the students who—when *they* go to college, or to work, or into the armed services—are fulfilling their families' hopes

for them—and who meet my criteria for success.

Having made the point—that there is no single "model" high school for Black and Hispanic students—I would like to test this point against educational research, which seems to me to support my position.

A number of articles have appeared recently on the long-range benefits of preschool as exemplified in the recent report on 123 low-income children who participated in the High/Scope Program at Ypsilanti, Michigan. *The New York Times* recently reported that "At age 19, their record shows that the rates of employment and participation in college or vocational training after high school for the preschool group were nearly double those of youths without preschool education . . . preschool graduates were involved in 20 percent fewer arrests and detention; nearly 20 percent fewer had dropped out of high school."

The school district of Philadelphia is not yet able to document with this detail the long-term effects of its prekindergarten program graduates, but through its computerized longitudinal file system it is able to produce the following kinds of information on its poverty-level prekindergarten group as of 1983-1984.

1. As many as 10 kindergarten cohorts (nine grade 1 cohort, eight grade 2, etc. through one cohort in grade 9) of Get Set Day Care (low-income) and prekindergarten Head Start (poverty-level) graduates have entered the regular grades since 1974-1975 and been tracked each year since that time.

2. Every cohort tracked across the K-3 range has exceeded national norm expectations in total mathematics with only one exception. Every cohort has exceeded national norm expectations in total reading K-2 and most cohorts have also equaled or bettered total city (a socioeconomic cross-section) performance, at least K-8, in both total reading and total mathematics.

My own background is in early childhood education. I believe in the efficacy of early childhood education, and I believe that the success of our early childhood programs in Philadelphia will be evident as each cohort of students continues through high school.

But the eventual success in high school of these early childhood programs is dependent on external factors.

Considerable research has shown that the disparity in the cognitive

gap between children in low-income minority groups and middle-class children belonging to the majority is not as wide in kindergarten as it is in high school.

An Uphill Battle

What seems to happen in so many of our inner-city schools is what I call the cumulative deficit in learning. Black, Hispanic, and other minority children actually lose ground to their White counterparts.

Why? There are many reasons, not the least of which is that the existing opportunity structure that our children perceive provides little basis for motivation among those who will be victimized by poverty and discrimination.

Despite the continuation of the structural constraints on the aspirations and horizons of many of their students, predominantly Black and Hispanic schools can still be effective institutions of learning.

The factors that make schools effective are many. But after considerable investigation and replication of research projects, we have isolated five primary variables: 1) strong administrative leadership, 2) an orderly school climate, 3) high expectation for student academic achievement, 4) strong emphasis on acquisition of basic academic skills, and 5) regular student performance.

The effective school is an idea whose time has come.

And as we have proven in Philadelphia, effective schools can become a reality, whether they are White, Black, Hispanic, Asian American or varying mixtures of all four.

These schools could not be effective and the children would be unlikely to achieve in the absence of variables identified. Permit me to repeat them: strong administrative leadership, an orderly school climate, high expectation for student academic achievement, strong emphasis on acquisition of basic academic skills, and regular student performance.

Successful Black and Hispanic high schools are successful for the same reasons that White high schools are successful. There are no different criteria.

There is only the same diligence, the same determination, the same passion for excellence, the same rigorous criteria, and—above all—*the same commitment to the children.*

Teacher Competency Testing and Its Effect on Minorities: Reflection and Recommendations

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The Move to Test Teachers

In the last decade, state education departments, sometimes on their own, more often at the insistence of governors and state legislatures, have placed added emphasis on the use of standardized examinations for prospective teachers. In nearly every case, state education departments have established a cutoff score, prohibiting teacher candidates from proceeding any further in their pursuit of a teaching position until they have jumped over this hurdle. In some instances, state education departments have mandated testing programs for fully certified teachers already in the classroom. Since the issuance of *A Nation at Risk: The Imperative for Educational Reform* in April 1983 by the National Commission on Excellence in Education, the move toward teacher testing has become a stampede.

By 1984, over half of the states had implemented some form of testing requirement for prospective teachers. By 1988, nine more states will join their ranks, having already passed the necessary enabling legislation. The tests vary from state to state in terms of when they must be passed, whether basic skills only are tested, or whether general knowledge and/or subject matter mastery tests must be passed as well, and what the minimum passing score is for a given test.

In November 1984, Educational Testing Service reported that 17 states require an individual to pass a test prior to his or her entry into a teacher education program. This is usually a standard college entrance test or a test of basic skills. Including 12 of these states, a total of 28 states have a testing requirement for teacher credentialing. A

variety of tests or a combination of tests are in current use: the Scholastic Aptitude Test (SAT), five states; the American College Testing program (ACT), five states; the California Achievement Test (CAT), five states; the Pre-Professional Skills Test (PPST), two states; the National Teacher Examination Core Battery, one state; state-developed examination, five states. Minimum passing scores for the SAT range from combined scores of 745 to 1000. Of the states requiring a test for certification, rather than for entry into a program, six states have developed their own tests, ten states use the NTE Core Battery, and ten states use the NTE Specialty Area tests. Passing scores vary. For example, in the NTE Specialty Area Test, Education in the Elementary School, the grading scale is from 250 to 990 points and the minimum passing scores vary from 480 to 600 points (Goertz and Pitcher, 1984, pp. 2-3.)

Prospective teachers in California who have not graduated from a state-approved academic waiver program are required to score above a specific minimum cutoff score on the National Teacher Examination (NTE). Since 1983, prospective teachers are also required to take the California Basic Educational Skills Test (CBEST), which is designed to measure *basic* skills in mathematics, reading, and writing. They must take the test for diagnostic purposes before they can student teach and must pass it before they can be certified.

Virtually the only point on which all observers of the current trend in teacher testing can agree is that the use of such tests can be highly problematic. Some have argued that the use of virtually any standardized competency examination is fundamentally unfair, because few, if any, competency examinations have been found to be valid predictors of teacher effectiveness in the classroom. The National Education Association (NEA) has been quite cautious about the place of testing in teacher recruitment, selection, evaluation, and promotion. The NEA also contends that there are other legitimate reasons for opposing the use of such standardized examinations. In a 1980 report, *Measurement and Testing: An NEA Perspective*, the NEA argues that standardized examinations are: 1) "biased against those who are economically disadvantaged or who are culturally and linguistically different"; 2) "invalid, unreliable, out of date and restricted to the measurement of cognitive skills"; 3) "used by book publishers and testing companies to promote their financial interests rather than to improve measurement and instruction"; 4) "used by the media as a basis for invidious comparisons." Thus, the NEA says they should not be "used to evaluate teachers" (NEA, 1980, p. 51).

The NEA's position is not shared by the other major teachers' professional organization, the American Federation of Teachers (AFT). The AFT supports the use of "accurate and appropriate measures to certify teachers" (quoted in Scherer, 1983, p. 49). The AFT's position more accurately reflects teacher sentiment. According to the 1984 Gallup Poll of Teachers' Attitudes Toward the Public Schools, 63 percent of teacher respondents expressed support for "a state board examination to prove their knowledge in the subjects they plan to teach" (Gallup, 1984, p. 104). There is some evidence that teacher support at the grass-roots level for competency testing may be a defensive reaction, a response by teachers to public fears that the schools are being staffed with teachers who are professionally incompetent.

Also supporting the use of competency examinations for teachers have been state education department officials and many deans of schools of education. Most state superintendents have come out in support of teacher examinations because this has proven to be an effective means of communicating to the larger polity their commitment to "standards of excellence." Commenting on the work of the ad hoc Committee on Competency Tests and Performance Assessment of the Council of Chief State School Officers, the committee's chief of staff was reported to have stated that the committee's greatest concern is that "cutoff scores may not reflect standards of excellence but may merely reflect consensus and the desire to maintain teacher supply in the state. . . . What we found is that many states that have required competency tests have done it for political purposes and are not better off as far as standards are concerned" (Scherer, pp. 59-60).

Many deans of schools of education have supported examinations for prospective teachers as a means of improving overall student quality in their units, even where the "cost" of this quality increase can be measured in an immediate enrollment decline. Some deans taking this position have argued that these short-term declines in enrollment will be more than offset by long-term increases in enrollment of higher quality prospective teachers. Some observers have cited what they believe is evidence for this "addition by subtraction" policy. For example, the University of Oregon experienced—for the first time in its long history—a waiting list to enroll in the university's teacher education program, following its decision to raise admission standards (Pugach and Raths, 1983). What is not clear is whether Oregon actually *increased* the relative attractiveness of teaching vis-à-vis other programs of study for academically accomplished students, or merely

improved its student body by cutting off admission to students who would have been admitted under former admission standards.

Unless teaching attracts a greater proportion of academically accomplished students, the "addition by subtraction" argument remains unconfirmed and troublesome. For a school of education dean in a college or university experiencing overall enrollment declines, where there is great counter-pressure to relax standards in order to increase enrollments, the "addition by subtraction" plan may be considered a risky path to take.

Going beyond teacher testing to evaluation of pre-professional programs in education, some state legislatures have mandated the use of standardized examinations in teacher recruitment, selection and evaluation, and as a means for holding institutions of higher education and departments of education accountable for the performance of their current students and recent graduates. In 1984, the Tennessee State Legislature passed a law requiring the State Commissioner of Education to place on probation for one year those schools and departments of education in which 30 percent or more of the students failed the state's basic skills test. When the student failure rate exceeds 30 percent for two consecutive years, the law requires the commissioner to revoke the institution's accreditation for teacher training programs. A comparable law passed in Florida resulted in 18 out of the state's 25 teacher training institutions losing state approval of one or more of their educational programs (Stoddart, Losk and Benson, August 1984, p. 7).

Many may claim that this is a "punitive" approach and they also, quite correctly, point out that other professional schools are not subject to a similar fate when their students fail licensure examinations at higher than acceptable rates. For example, in California the failure rate for the February sitting of the state bar examination usually is about 72 percent. While California law schools *are* rank-ordered according to their student passing rate for some purposes by the state bar, no one has suggested that a law school should have its accreditation revoked because of the relatively poor showing of some of its students on the state bar examinations, despite the belief of those who score the essay portion that the writing ability of candidates for the bar is on a steady decline.

Perhaps because of the differential in status ascribed to the candidates sitting for the respective examinations, prospective lawyers as a group may be viewed as professionals responsible in good part for

their own fortunes and performance, while prospective teachers are not afforded this measure of respect and are assumed to be a "product" turned out by their school. While the common term is "teacher training institution," the counterpart for the legal practitioner is not a "lawyer training institution."

The assumption underlying the view of both sets of institutions is one that belongs in the marketplace: Many good students want to go to law school. When such students see that the graduates of certain law schools are more likely to pass the bar examination, the best students will apply to these schools and on down the line, with few students applying to the schools with very poor pass rates. The inverse of this situation is sometimes seen in schools of education. The assumption is that the schools of education need to find students and, if left unrestrained, they will pull in—off the street, if they have to—just about anyone, with no regard for past academic performance or for professional potential. Although we know that this exaggeration is rarely true, it has been true enough, often enough, to raise the suspicions of many governmental policy makers, inside *and* outside of the educational establishment.

Attacks on Testing

With greater reliance on both student and teacher testing, the controversy surrounding greater use of standardized examinations has intensified. In addition to the NEA, among those most reluctant to endorse the increased reliance on standardized examinations are groups sensitive to the unique problems confronting prospective teachers from minority backgrounds.

The reluctance of these groups is understandable given the tests' effects on such individuals. In California—according to the Commission on Teacher Credentialing (CTC)—of 6,644 candidates from minority groups who took the first California CBEST exam in 1983, 3,854, or 58 percent, failed. The highest failure rate was among Black candidates. of the 2,040 Black candidates who took the exam, only 530 were able to proceed with their plans to be teachers, a paltry 26 percent. For other minority groups, the test results were not much better: only 834 out of 2,133, or 39 percent of Mexican-American candidates passed, and only 50 percent, or 637 out of 1,259 Asian-American candidates passed the CBEST exam. In comparison, the passing rate for

White candidates was 76 percent, with 18,856 of the 24,540 candidates passing (CTC, December 1984).

The problems associated with these high minority failure rates are made all the more serious by our increasing need for qualified Black, Hispanic, Asian-American, and Native-American teachers at a time of rapid demographic change. Again, California provides a dramatic example of national demographic trends. In the 1981-1982 school year, the state's total public school population was only 56.4 percent non-Hispanic White. For grades K-3, the *majority* of the state's public school pupils were: 34.1 percent Hispanic; 9.1 percent Black; 6.8 percent Asian American or Pacific Islander; and 0.8 percent Native American. If current trends continue, by 1995 more than 50 percent of the state's total public school population will come from a minority group. If California's public schools indeed do exceed a 50 percent minority enrollment, they would join most of the nation's 35 largest city school districts, the majority of which now have overwhelmingly minority enrollments. Needless to say, high minority pupil enrollment rates, if unchecked by dramatic interventions, could result in a high degree of conflict between minority parents and a largely non-minority teaching staff, similar to the one that plagued public education during the 1960s in many of the nation's larger cities.

The rates of failure on these teacher examinations reflect two ominous trends: First, interest in teaching on the part of many well-educated students, especially talented minority students, has declined precipitously in the last 15 years. As the teacher surplus of the 1970s drastically reduced opportunities and salaries for teaching, college students increasingly chose other majors. Moreover, as new career opportunities outside education have opened up for them, talented minority and women students, who earlier would have entered teaching, have chosen other fields. The proportion of college-bound students who said they intended to major in education fell from 24 percent in 1969 to less than five percent in 1982. The decline has been particularly evident for highly qualified minority candidates and women. Second, colleges and universities are failing to guarantee that their graduates, including many minority graduates, can read with comprehension, write literately, and perform routine mathematical computations. This trend is a clear manifestation of the general failure of many colleges and universities to exercise proper leadership and authority over their educational programs. The report of the Association of American Colleges (AAC), *Integrity in the College Curriculum:*

A Report to the Academic Community, argues that "evidence of decline and devaluation is everywhere." Moreover,

> there is so much confusion as to the mission of the American college and university that it is no longer possible to be sure why a student should take a particular program of courses. Is the curriculum an invitation to philosophic and intellectual growth or a quick exposure to the skills of a particular vocation? Or is it both? Certainty on such matters disappeared under the impact of new knowledge and electives in the late nineteenth century. The subsequent collapse of structure and control in the course of study has invited the intrusion of programs of ephemeral knowledge developed without concern for the criteria of self-discovery, critical thinking, and exploration of values that were for so long central to the baccalaureate years. The curriculum has given way to a marketplace philosophy: it is a supermarket where students are shoppers and professors are merchants of learning. Fads and fashions, the demands of popularity and success, enter where wisdom and experience should prevail. Does it make sense for a college to offer a thousand courses to a student who will only take 36?
>
> The marketplace philosophy refuses to establish common expectations and norms. Another victim of this posture of irresponsibility is the general education of the American college undergraduate, the institutional course requirements outside the major. They lack a rationale and cohesion or, even worse, are almost lacking altogether. Electives are being used to fatten majors and diminish breadth. It is as if no one cared, so long as the store stays open (p. 12).

If these trends continue—and make no mistake about it, they will as long as colleges and universities, ignoring the implications of the findings contained in *Integrity in the College Curriculum*, continue to permit these students to chart their own intellectual development—the situation can only deteriorate further. Unaided by the collective intelligence of the academy and a commitment to improving the attractiveness of the teaching profession, the supply of talented, well-educated teachers from minority groups will continue to nosedive, a result that is as disturbing as it is unacceptable. Equally serious is the prospect that when minority group pupils, especially those contemplating teaching careers, learn that many prospective minority teachers are judged not good enough to teach, they may lose confidence in their own abilities, reaching the conclusion that the teaching profession is "off limits" to students from minority groups. Also, students from these groups, who desperately need to see successful role models, would be denied access yet again to exemplars of success.

Even before recent reports revealed the potential for negative effects

on minority group representation in the teaching force, there was opposition to teacher competency testing. Many who are sensitive to the unique problems of minorities have been vocal and active in their opposition. Among them is Professor Walter A. Mercer of Florida Agricultural and Mechanical University, a historically Black college supported by the state. Professor Mercer contends, quite persuasively, that the policy of the Florida State Board of Education that imposes a minimum SAT cutoff score of 835 for prospective teacher training candidates will have a devastating impact on the future supply of Black teachers. Predicting that "future teachers from groups could become vanishing breeds," Professor Mercer calls on policy makers to establish *alternative* teacher education admission requirements (Mercer, 1984, p. 29).

Mercer's concerns are borne out by the report that only 200 Black teachers were part of a total of 5,500 teachers certified in Florida in 1981. These low numbers were mirrored in the pass rates on Florida's Teacher Competency Examination, given for the first time in 1983: 90 percent of White candidates passed, 35 percent of Black candidates, 51 percent of Hispanic candidates, and 63 percent of Asian candidates. Also passing were all four of the Native American candidates who sat for the examination (Smith, 1984, p. 7).

The pass rates are no more encouraging elsewhere. The first administration of the Texas examination for prospective teachers eliminated 84 percent of the Black candidates and 65 percent of the Hispanic candidates on the basis of the mathematics examination; 87 percent of the Black candidates and 65 percent of the Hispanic candidates failed the reading test; and 80 percent of the Black candidates and 56 percent of the Hispanic candidates failed the writing test (G.P. Smith, p. 7).

A group of Texas researchers has predicted that, if the present trend is uninterrupted in Texas by 1988, since candidates must pass all three examinations—as they must in California—96 percent of Black candidates and 84 percent of Hispanic candidates will be denied permission to teach on the basis of their reading tests alone. On a national level, if the currently observable trend continues unabated, "along with normal rates of attrition through retirements and teacher burnout, minority representation in the national teaching force could be reduced to less than 5 percent by 1990" (G.P. Smith p. 8).

The picture painted by these numbers is as horrifying as it is unacceptable. Therefore, it would be easy to be diverted by the nightmarish quality these statistics create. We are fully aware of the devastating

effect this reality creates for the young people who have a strong desire to build a career for themselves by educating our young. We are equally well aware of the full implication for minority children in current and future classrooms who will believe that minority people may not teach. The first reaction of some is to claim "racism" and to insist that alternate certification standards must be adopted for minority candidates. Otherwise, human potential will be ground into the dirt and the promise of democracy and the promise of equality placed, yet again, in deep jeopardy. The question remains whether this prospect necessarily rules out the use of proficiency tests.

In Favor of Competency Testing of Minority Candidates

We can gain many insights into the need for proficiency testing by analogy to the argument of sociology professor Harry Edwards at the University of California at Berkeley regarding the NCAA's "Rule 48", which sparked "what is probably the most heated race-related controversy within the NCAA since the onset of widespread racial integration in major college sports programs during the 1950s and 1960s" (Edwards, 1983, p. 33). The rule stipulated that "beginning in 1986, freshman athletes who want to participate in sports in any of the nation's 277 Division I colleges and universities must have attained a minimum score of 700 (combined) on the SAT or a score of 15 (composite score) on the American College Test and must have achieved a C average in 11 designated high school courses, including English, mathematics, social sciences and physical sciences" (*ibid.*).

The concern voiced by many Black leaders was intense and immediate. Some were angered because they were not consulted in the formulation of the rule, others claimed that the setting of the SAT minimum score was arbitrary. Still others stated that the SAT and the ACT are racist diagnostic tests, biased in favor of White students, and that the proposed cutoffs imposed unfair penalties on Black athletes. Edwards took a stand supporting the enforcement of the rule. He agreed that the cutoff scores may well have been arbitrary, but found them *so* arbitrarily low as to constitute no standard at all. Edwards stated:

> Further, were I not to support Rule 48, I would risk communicating to Black youth in particular that I, a nationally known Black educator, do

> not believe that they have the capacity to achieve a 700 score on the SAT, with three years to prepare for the test, when they are given a total of 400 points simply for answering a single question in each of the two sections of the test, and when they have a significant chance of scoring 460 by a purely random marking of the test. Finally, I support the NCAA's action because I believe that Black parents, Black educators and the Black community must insist that Black children be taught and that they learn whatever subject matter is necessary to excel on diagnostic and all other skills tests. (Edwards, 1983, p. 37)

We need to couple support of such rules for minimum competency with the insistence that we work together to ensure that minority children receive the education necessary to enable them to score competitively on examinations from SAT, to NTE, to CBEST. We must also insist that state public officials, in and out of the education establishment, develop, fund, *vigorously* monitor, and intelligently evaluate targeted school improvement programs so that minority students at all levels can become more competitive on all examinations of scholastic achievement. In taking this line, I am not contending that these examinations are problem-free, or totally unbiased. In some instances, these tests may be biased in favor of or against any particular ethnic, racial, or cultural group. They certainly are heavily class-biased. Allan Nairn said of the SAT: "In sum, it is advertised as a test of 'scholastic aptitude' . . . used by colleges to accept and reject applicants ostensibly on the basis of merit. For many students, the SAT may be more a reflection of their social class than of their potential for accomplishment inside or beyond the classroom" (1980, p. 652).

Mary Frances Berry furthers this argument with her assertion that "a major differential [among test scores] was *not* between Black and White students, but between students from well-off families and students from poor families. The better off the family, the higher the score—for Whites *and* Blacks" (Berry quoted in Edwards, p. 34). Indeed, the College Board's *Profiles, College-Bound Seniors*, 1983 shows exactly that. The relationship between family income and test scores is highly significant. While not as high, the relationship between level of parental education and SAT scores of high school seniors is also very substantial.

We must interrupt this cycle of failure. Certainly, standardized tests cannot, to quote *Washington Post* columnist William Raspberry, "measure patience, love of children and learning, the ability to maintain order, and a hundred other things that make up teacher competency. But the tests can measure whether a teacher has learned the

basics of pedagogic techniques (which we consider important, else why would we mandate education courses for teachers?) and whether a teacher has a solid grasp of the material to be taught . . . . I assume that the reason minority applicants fare worse on the tests than Whites is that they themselves are victims of inferior schooling" (quoted in Brott, 1983, p. 37).

I fully agree with this view and would add that, whereas I would *not* rely on a test to tell me who had the personal warmth and caring required of a good teacher, and I would *not* expect a test to tell me who from among a pool of applicants has ambition, drive, or dedication, I *would* expect a test to give me some reliable information about the basic competencies of a pool of applicants. I would *not* want such a competency test to generate a list of prospective students in a rank order, because we do not know enough about individual differences to do that. Further, I believe that, as much as measuring potential aptitude, perhaps even more so, tests such as the SAT and well-constructed, appropriately-used tests such as the CBEST measure both what students have learned *and* show how well students are able to apply their learning to what the test asks of them.

What all of the test results we have discussed thus far indicate is that we are still neglecting the children of low-income families. The test results show that those who enter our system with the most at their disposal are the ones who will get the most out of our system. The system continues to be "theirs." If we were to do as Arnold M. Gallegos, dean of the College of Education at Northern Arizona University suggests and set apart alternative methods for certifying minority group members who want to teach (Gallegos, p. 361), then we would be perpetuating the cycle, however benign our intent.

If we take note of Henry Levin's provocative finding that each additional point scored by teachers on *their* SAT verbal subtest can be translated into a net gain of .175 points to the verbal scores of Black students and .179 to the verbal scores of White students (Weaver, p. 110), then we have that much more impetus to work to provide educational settings that would give students from low-income backgrounds the same chance at passing teacher credentialing examinations—whether SAT, CBEST or NTE—as students from middle-income backgrounds. As Dean Gallegos quite correctly states, historically we have tended to "blame the victims," that is, the minority students, for their failure on examinations, not the institutions that prepare them (*ibid.*, p. 631).

If we are to interrupt the cycle of failure, we must take direct action to provide *all* students in or public schools with quality education that is responsive to their real needs. We cannot begin this effort without well-qualified teachers, including well-qualified minority teachers. To meet the challenge we face, we need to take steps to ensure a larger pool of qualified minority teachers, while also maintaining and improving quality standards.

We know full well that all of the knowledge and skills that are tested are learnable. Students can achieve acceptable test scores if we teach them what they need to know. This means teaching all of the skills and understanding that they will require if they are to function well in the contemporary world and also be prepared to make the best adaptations and choices in their lives as they move into the future. All of this is said in full acknowledgement of the pain and suffering that is experienced by those who are not presently armed with the knowledge and the skills required to pass present minimum competency examinations.

What I am about to propose will bring a transitional period of short-run disappointment for some who will be locked out of the teacher training programs they wish to enter. But it will finally put a stop to "victim blaming" measures that have created more problems each time they have been applied in place of long-range, well articulated solutions.

Toward that end, I propose a three-step, comprehensive program to include: early identification of minority and low-income students who have a commitment to teaching; intensive university and postgraduate teacher training; and programs and rewards for outstanding, effective teachers once they are in the classroom.

Step One: The early identification and intensive training of minority students who wish to teach

As early as high school, students who have expressed an interest in teaching as a career would be selected to participate in a special university pre-professional teacher preparation program. Program admission standards would consider potential for growth and an exceptionally strong willingness to learn, in addition to the traditional criteria of grades and past achievements. Special efforts would be

made to recruit students with a background or interest in areas of special need, such as mathematics, science, or language and literacy. The program would require a five-year university course of study leading to the Bachelor's degree and would provide a series of *paid* school year and summer teaching-related internships.

Upon entry into the program, optimally with entry into college, students would be given a series of criterion-referenced tests for diagnostic purposes. In conjunction with their regular course load, the students would be enrolled in a series of self-paced tutorials to work on basic skill development in those areas that their diagnostic tests indicated as areas of need. These tutorials would be an integrated part of a substantive undergraduate liberal arts program leading to a subject major B.A. or B.S. degree.

Upon satisfactory completion of the program and the conferral of the degree, students would be *guaranteed* admission to participating colleges and universities (in the case of California, the California State University or University of California Graduate School of Education programs), where they would be enrolled as regular students. Graduate scholarships covering the full costs of student fees and filing expenses would be provided to all of these students who enter graduate teacher education programs with an undergraduate grade point average of B + or better. Partial tuition scholarships would be available to high-achievement students with a B average. Regular financial aid programs would also be available. Again, as in the first phase of this program, paid internships would be provided to *all* qualified students for the duration of their postgraduate teacher training studies.

During the course of the program, the tutorials would be designed to do away with troublesome conditions such as those identified in Stanley Ivie's analysis of Black student achievement on the NTE. Ivie noted that Black students perform poorly on the NTE because the examination is as much a reading test as a subject matter test and that many Black students cannot perform well on the test because of poor reading skills. He states that most Black students have not "mastered the basics" prior to entering college and that college does little to correct the situation because of an insufficient emphasis on the teaching of writing and the possibility of students avoiding all liberal arts courses that have substance or rigor (Ivie, 1982, p. 171). Given such circumstances, it is sadly understandable why tests taken at the end of college too often show poor results.

In response to these needs, the developmental programs I am pro-

posing would focus in the undergraduate level on reading skills, basic mathematics operations—with heavy emphasis on reasoning skills manipulations and application—and good, clear writing. Since the students would at the same time be enrolled in courses that required these skills, they would have sufficient opportunities to practice the skills as they are developing them, while receiving continuous positive feedback as they utilize new skills in their course work. At the end of two years, the students would take a series of tests to measure their growth. A new program, based upon current skill levels, would be developed and the process would be repeated on a higher level. The students also would take practice versions of the required teacher licensing exams.

The licensing tests themselves should not be used as diagnostic tools. There have been problems in this area in California with the CBEST. In a report on the use, and potential for misuse, of the CBEST, Richard Watkins, CBEST consultant to the California Commission on Teacher Credentialing, cautioned that far greater demands are made on a test to be used for diagnosis than for determining proficiency, since a diagnostic test must "yield reliable measurement over a continuum of skill or ability and provide reliable scores on several reasonably different skills and subskills." Watkins concludes that tests such as the CBEST can only make the most general predictions about outcomes and cannot be used for prescription on the basis of their results alone (California Post-secondary Education Commission, 1984, p. 7). This explains the lack of success for those who have failed the CBEST and attempt to use their test results as a basis of preparation for reexamination. The candidates who have done this have been frustrated and angered by their lack of progress. The approach recommended above would avoid this frustrating outcome by providing accurate diagnostic tools combined with practice on the actual test to gain familiarity and confidence in standardized test taking.

As I noted earlier, I strongly urge that the entry tests into a teacher education program *not* rank-order test takers. The purpose of these tests is to establish the presence or the absence of a prerequisite degree of knowledge and sets of skills. We are not looking for a cutoff point in order to limit entry on the basis of a basic skills examination. The ideal condition would be if almost all of those who sat for basic skills tests were equipped to pass them. The society needs educated people. So far as selection into a teacher training program is concerned, we are bogged down in the issue of pass rates because so many people are not

passing, not because these tests are the primary criterion for acceptance into a program. The evidence of basic skills competency is the baseline from which the selection process can proceed. We must create the situation in which we are selecting from among all qualified candidates in order to identify those who possess the greatest degree of those qualities that make for an outstanding teacher.

Given the realities of the present, several things will have to be changed before we can proceed realistically, and only one of them involves raising the competency level of those applying to become teachers. We must acknowledge that if we wish to attract and retain the most qualified, the best applicants, then we have to treat them as young professionals are treated in other career fields. Only then do we have the right to expect high-level professional performance and long-range staying power from them. In terms of the minority/low income candidates we need to recruit, this means that we will have to affirm our national commitment to quality education and underwrite, through federal and state contributions, the creating of excellence. This would require incentives to the potential teachers in the form of merit/potential scholarships and loans with forgiveness provisions based upon number of years' service as a teacher. If we wish to retain good people, we will also have to make serious moves to bring teaching salaries into the professional range. In California, we have just begun the process. Many hope that it is not too little too late.

Step Two: Placement and retention of teachers from a highly qualified applicant pool

Even given the current condition—that of being at the end of a period of oversupply of teachers—we can look to the future by beginning an implementation process based upon the recommendations in my report *Race, Ethnicity and Equal Employment Opportunity: An Investigation of Access to Employment and Assignment of Professional Personnel in New York City's Public Schools:*

First, any "alternative teacher selection processes" should be terminated. Though such programs may have been successful in increasing minority employment opportunities, they have operated as racial conduits, steering newly hired minority teachers into almost exclusively minority schools. Then, such old systems for selection and evaluation

of new teachers should be replaced with ones that encourage personnel officials to match the needs of students in the public schools more closely with the talents of potential teachers in the qualified applicant pool.

We must always be mindful that the effectiveness of our school systems will not be found in the statistics on the racial composition of our teaching staffs but rather in the statistics reflecting the mastery of basic skills in reading, writing, and arithmetic by all of our students. We must once and for all understand that proportional minority participation in the career of teaching and high-quality outcomes in terms of student learning are not at odds with each other. There is no such thing as a choice between equity and excellence. There is no equity in the absence of excellence.

If we are to meet our moral and legal responsibilities to both the potential teachers in our population and to their future students, we must continue to employ valid, job-related written examinations of potential teachers' basic skills. As we do so, we can make significant advances toward reversing the persistent trends in which teachers with less experience, few advanced degrees, and lower salaries are assigned to schools with high proportions of minority/low-income pupils. As soon as teachers gain enough seniority to do so, they move on to "better" schools populated with middle- to high-income students. We must reverse this practice and work on developing systems of equal employment opportunity goals and plans that would integrate school faculties and show *all* school children that quality education is a function of many factors and that achieving high scores on tests is a function of many factors as well, but that group membership is no longer one of them.

Step Three: Identifying and rewarding outstanding teaching

In addition to the various kinds of testing programs we have proposed and discussed, I propose an additional one: a test to be taken after at least three years of practice in a full-time public school teaching position. This test would measure not only subject matter competency in a given field, but also: 1) knowledge of learning theory, that is, professional judgment as evidenced by ability to diagnose accurately student needs in terms of skill level and social development and select appro-

priate learning experiences; 2) ability to match instruction, materials and methods to the needs of the students; 3) ability to monitor progress of students in a systematic way, providing useful feedback mechanisms; ability to create well-balanced lessons that vary activities and build progressively from facts to concepts to valuing and evaluating, thus giving students opportunities for and experiences in raising their thinking and reasoning skills; and 4) ability to evaluate accurately student progress in a manner that is consistent with stated goals and objectives and that involves students as active participants in the evaluation process.

Such a test would be to teaching what the Certified Public Accountant's examination is to accounting. As such, it would be entirely voluntary. Only those who wish to take the test for purposes of professional advancement would do so. I would also strongly recommend that the test be made voluntary on a nationwide basis. This would have the added benefit of opening up the job market for master-level teachers. Outstanding educators who find themselves in a dead-end position in their own school district could seek advancement not only outside their district but also outside their state. Such open competition would work for the benefit of all concerned. Areas experiencing growth would have an excellent pool from which to select, while teachers who are seeking advancement in their career goals would not have to leave teaching in order to progress professionally. These master-level teachers would be compensated accordingly, just as CPA-level accountants are.

Of course, individual states (and districts) could supplement the national examination with locally designed sections, reflecting state concerns and priorities. For example, a state with a large pupil population whose English skills are limited might want to emphasize the importance of teachers being expert in this area, while other states might emphasize other areas of great need.

In addition to promoting teacher professionalism by encouraging and rewarding teachers who have objectively demonstrated superior skills as educators, the introduction of a CPA-like examination for teachers would also place teachers (and the polity) in a more strategically advantageous position to press colleges and universities to undertake reforms that would improve the educational enterprise, at all levels. In particular, teachers and policymakers would be in a position to press the higher education establishment to think more systematically about the process of teaching (knowledge transmission) and

learning (knowledge acquisition) in particular disciplines.

Traditionally, disciplinary departments (i.e., physics, English, mathematics, etc.) have not directed much of their resources or energies toward understanding how students learn specific subject matter, what difficulties they face in learning how to think abstractly, what preconceptions they bring with them to the classroom, what instructional approaches are most effective for particular types of students, and how best to take full advantage of the potential of computer-based intelligent tutoring systems. The very promise of a CPA-like exam for teachers, covering what teachers should know about teaching and learning in particular subject areas, would vastly improve the linkages between teachers in the schools and teachers in colleges and universities. Here again, the AAC report, *Integrity in the College Curriculum*, speaks truth to established wisdom:

> If departments, particularly research departments, allocated one or two regular faculty positions to research on learning their discipline, they could produce results which would improve their own teaching effectiveness and would have visibility and impact beyond the walls of their own institutions. They would influence instructional materials at the secondary as well as the college level. And they could educate young researchers who would continue the enterprise and propagate it to institutions where it does not yet exist (p. 16).

How Do We Pay for These Programs?

In addition to the means of support for individuals already mentioned, we could finance these teacher education scholarships and internships from at least three possible sources. Since all students benefit from better qualified public school teachers, one appropriate source is a small increase in the registration fees that all university students pay. For example, if the University of California raised student fees by only $25 per semester, it could generate over $7 million per year—enough to support over 900 teacher education students each year. If the State University raised student fees by the same amount, it could generate over $15 million per year, enough for over 2,000 teacher candidates.

State lotteries are also appropriate sources of funding. In most states with lotteries, by law, lottery profits are supposed to support education. What better use for these monies than to increase the number of qualified teachers in our schools? Finally, the legislature could

provide the funds through a direct allocation for this program. Frankly, in today's fiscal climate, this approach seems to hold the smallest prospect for implementation.

Conclusion

While we all agree that during the transition period there will be disappointment for those who fail the tests requested for teacher credentialing, competency examinations for teachers—as long as they are well constructed, correctly standardized measures—are necessary for the development of the teaching profession and beneficial to the education of our young. If we do have a commitment to quality education for all, as part of our dedication to the principles of equality, then we will not change the requirements to fit the present median performance of minority applicants to teacher education programs. Rather, we will keep the desired performance level and provide the kinds of support and training that will make it possible for minority applicants to garner the learning and experience needed to pass the examinations for entry into and exit from teaching credential programs. We have the "know-how" to do this, all we need now is the affirmation of the belief that we will only have a quality system of education when we can provide equality of outcome in basic skills across economic as well as across racial and ethnic lines.

Teaching, the transmission of thought from one mind to another, traditions and values from one generation to the next, is one of the most important activities of the human race. It is the one skill whose absence prevents magnificent successes and guarantees startling failures. Without good teaching, genius is struck dumb, poverty is permanent, power is likely to be brutal, and culture doomed to be channeled into mind-forged ruts. Good teaching enables and ennobles, providing society with the tools necessary for self-perpetuation and self-renewal. To put forth the argument that minority youngsters, the most disadvantaged of the poor, and the least able to emancipate themselves from their impoverished surroundings, should be taught by our less-than-best teachers is to pervert the nature of justice. As admirable and important as is the goal of increasing the ranks of minority teachers, this objective must not be put before the more fundamental objective of securing good teaching for those who need it the most.

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Change Without Growth: The Access Dilemma of the Community College in the 1980's

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Change comes only slowly and painfully at any level in education, but we may be entering the optimum period in this century for constructive analysis of our systems and positive reforms. Nine national reports[1] have alerted the public to problems at all levels in our educational network. The 1984 presidential campaign included an unusual focus on education as a critical issue. And media attention is extraordinary. However, there is reason for concern about what substance, if any, might emerge. The reforms now being discussed nationally center upon issues such as: prayer in the classroom, tuition tax credits, educational vouchers, merit pay, teacher competency, and access testing. None of these address the area of instruction, where problems are most acute. In higher education, proposed reforms are leaning toward measures that would further restrict access by minority students to higher education.

The public's sense of urgency emanates from concerns about quality. We are a "nation at risk," and we are threatened by a "tidal wave of mediocrity." None of the reports, however, stresses that education, at all levels, reflects society. Perhaps our schools are doing as well as can be expected in a society populated by television-oriented nonreaders unaccustomed to self-discipline. When one considers the suddenly multicultural nature of our schools and the virtual collapse of the American family, perhaps our teachers are doing as well as can be expected in a situation for which neither their education nor monocultural backgrounds have prepared them. At El Camino College, fully 10 percent of our approximately 30,000 students are immigrants.

Minorities today comprise the majority of the students in 49 of the nation's 50 largest urban school districts. And our colleges and universities will have to confront the needs of this new majority increasingly in the next decade. Few of the reforms being discussed today address these phenomena.

Minority students are suffering an especially harsh fate in public education today. With attrition rates of 28% for Black and 45% for Hispanic and Native American students in high school, only two to four percent of any of these groups are graduating from college. This completion rate will not provide the professional services and leadership these communities and the nation will need in the next century. It may well be that the nine reports and the proliferation of local studies are providing the right answers to the wrong questions. The true barriers to excellence at all levels—access, quality, economic and social change—are barely alluded to in any of the nine national reports.

Access is critical. Barriers to the completion of education such as pregnancy and lack of discipline must be addressed in K-12, if we are to avoid the creation of an underclass in our society. Program access is critical if students are to qualify for college and community college transfer programs. Vocational education must begin considering women's needs, as they explore new technical fields. There is an uneven distribution of both computer terminals and computer-literate faculty in our elementary and high schools. Again, students in poorer districts face serious disadvantages. Mathematics remains a serious barrier to access to technical programs. There is a need for new instructional approaches at all levels, to assure that these skills are mastered. Similarly, access must be balanced with a rigor that will assume completion of studies to a level that assures functional literacy and mastery of basic skills.

Special Learning Needs

The national reports also fail to address the legitimacy of the special learning needs that are common in our society. Remediation has become a necessity throughout higher education. The problem is not solved by eliminating remedial programs, as some states are inclined to do in the name of quality. Similarly, the problem faced by students dominant in languages other than English is not addressed by nationalistic reactions to educational techniques such as bilingual education

or English-as-a-second-language. Sound educational measures need to be implemented, evaluated, and improved as necessary to assure access to quality programs that meet specific student needs. The bulk of our youth must find the mainstream in higher education if this nation is to be secure in the coming century.

The public has generally failed to sense the impact societal changes are having upon education at all levels. The single-parent family is common. Our youth do not see the written word as their prime vehicle to either convey or receive information. The discipline necessary for academic success is not a societal standard. Parental involvement in the schools is limited, just as constructive public interest in the colleges remains low. Reform and positive momentum in education will require public involvement.

The quality of our educational programs has been rightly questioned. But the emphasis has been greater upon punitive measures than upon constructive reform. There has been an enormous influx of new cultural groups into our society. But little attention has been given to staff development needs, to attuning faculty to the complex cultural dynamics they now face, or to enlightening them about the learning styles of other cultures. Enormous progress can be made if present faculty can be given the skills they need. Competency testing, which has become popular, may well be one valid approach to assure student and faculty expertise. But little care has been taken to clearly articulate the relationships between competency tests and quality. Similarly, little has been done to review curricula in teacher education or in the schools, to toughen critical, analytical, and problem-solving skills. Ultimately, the measures undertaken to assure quality education should be carefully articulated with changes already visible in the economy, which will demand new and perhaps different skills beyond the basic competencies we should be able to assume.

Our discussion has included elementary and secondary as well as higher education for two reasons. First, quality at any level presupposes academic strength at the level below. Secondly, the California State Legislature passed an omnibus educational reform bill (Senate Bill 813) in 1983. And legislative reform of community colleges is under active consideration, with many legislators using SB 813 as a model. Currently, the mission of community colleges, a matriculation program, measures to increase transfer rates of minority students to four-year colleges and universities, an academic "floor," and differential funding are all being studied.

Student Transfer Rates

Perhaps the deepest concern in California has focused upon transfer rates, since this is perceived as a benchmark of community college performance and quality. It is vital to note that community colleges throughout the nation have been assigned the tripartite mission that includes both transfer and vocational education and community services. Remediation has become a vehicle to assist access to the academic programs. The mission has addressed needs and assured access to a broad population base. But it is vital to note that transfer is but one component of that mission. This is especially important in view of the very fundamental changes the nation's economy is undergoing, and the resulting phenomenon of "structural unemployment."

Data on transfer rates often tend to be flawed. In California, the rates cited by the California Postsecondary Education Commission are based upon:

1. Students who complete the community college program and receive the associate degree, and
2. Students who transfer into a public college or university.

Thus the cited transfer rates ignore a large segment of the transfer population, which moves to private institutions or transfers to a baccalaureate program without the associate degree after one to four semesters at a community college. If the students at the University of California, California State University, and the private sector were polled for prior attendance at a community college, a very different picture would emerge. It will be very difficult to assess the performance of California community colleges fairly or to seek either reform or a revised mission until valid data is generated.

At the campus level, community colleges cannot await valid data. Like the public schools, community colleges are facing extraordinary changes. Shifting demographics have resulted in sharply increased enrollments of minority, immigrant, and non-English-speaking populations. These students bring new needs and new learning styles for which traditional faculty are unprepared. The "underprepared" student has become more common, making retention more difficult than ever before. Over 10 percent of El Camino College's 30,000 students are immigrants. The College now offers 29 classes in English as a second language to 928 students, and more sections are needed. An additional group of several hundred students are served through a

Vocational ESL Center. Failure to address these needs can have serious implications for the workforce and for the future of minority students in higher education.

The "underprepared" student poses other challenges. While these students are generally highly motivated, their lack of basic skills reduces their chances of success. El Camino College now offers 153 sections at developmental levels in English, mathematics, and learning skills courses that serve 3,883 students. However, the public and the legislature have begun to question the cost and propriety of "remediation." This will be one of the key issues discussed as the legislature debates the future mission of the California community colleges.

The initiatives undertaken at El Camino College in recent years have been based upon several well-founded assumptions. First, it was assumed that the profile of our students was changing drastically, bringing us more diverse cultures and learning styles and a wider spread of basic skills. Second, it was accepted that these student skills would have to be addressed, despite the fiscal uncertainty the College shared with all California community colleges. Thus new initiatives sought to maintain access at both ends of the basic skills spectrum and to assure meaningful access by enhancing retention and student success. A report by the Faculty Committee on Retention resulted in the clustering of all developmental programs under a full Dean in the Division of Curriculum and Instructional Development. Focusing upon student needs, this Dean has been able to integrate the formerly fragmented skills centers and developmental programs and courses around the campus, to maximize the College investment, and present the student with an integrated and coherent resource. The Dean's authority in the area of curriculum has led to efforts to focus the entire academic enterprise upon the reality of student needs.

A New Model for Matriculation

New models for matriculation will ultimately affect all California Community Colleges within the next decade. However, El Camino College developed its own model and implemented it in the fall of 1984. Matriculation is a swinging door that can either restrict access or provide enormous benefits to students. Our goal was to assure the latter.

The need for an access procedure that works is clear. In an effort to

broaden access in compliance with the State's 1960 Master Plan for Higher Education, California community colleges eliminated virtually all paperwork from the admissions process. This minimized distinctions among students by making it easy for them to attend full or part-time for a given semester—to attend days, evenings, or both, or to switch programs. Flexibility was a very legitimate objective. Proposition 13, however, passed in 1978, diverted college funding from local property taxes to the State and caused spending reductions and fiscal uncertainty. Counseling was one area cut sharply by attrition in an effort to protect enrollment-generating academic programs. Thus by the fall of 1982, El Camino College had only 10 counselors to serve the 32,400 students then enrolled. As attrition soared, flexibility, combined with minimum guidance facilities, caused other problems.

The matriculation program at El Camino College has seven components: formal application for admission, student orientation, basic skills assessment, counseling for program selection and course placement, counselor monitoring of student progress, and research and monitoring of the program. Needless to say, matriculation will be the catalyst for reestablishment of a viable counseling infrastructure. This must be a *sine qua non*, if goal orientation is to be established with a diverse and large student population. Little flexibility has been lost. Students can still move from full- to part-time status, and between day and evening programs as necessary. However, the advice of counselors can ensure that education is not hampered in the process. Nonmatriculated students retain even greater flexibility, since counseling for them is optional.

Reaching Out to the Community

As the College experiences change, a look at local elementary and high school districts signals even greater changes in the coming decade. El Camino College draws students from five high school and unified districts, which, in turn, draw upon twelve elementary school districts. Over 50 percent of the students in the K-12 "pipeline" to El Camino come from minority groups and twenty percent are dominant in a language other than English. The college district includes some of the wealthiest and some of the poorest communities along the Pacific Coast south of Los Angeles. Our faculty faces enormous challenges simply in the increasing diversity of students they will teach and coun-

sel. The College's approach to this has been to focus in two areas: strengthening cooperative ties to K-12 districts and placing renewed stress upon the staff development effort.

Throughout the fall of 1982, College staff worked as a joint committee with staff of a large high and elementary school unified district. The goal was to develop a list of potential areas for cooperation, focusing also upon joint, mutually supportive ventures that could be undertaken at little or no cost by available staff. The result was a proposal entitled "An Educational Cooperative Model for South Bay School Districts." This proposal was approved by both boards, and it outlined 34 potential projects in instruction, counseling, sciences, student support services, business and facilities, and community and cultural programs. The projected in-kind cost to the District for simultaneous implementation of all projects is $45,125, with a cash outlay of $5,591. The Cooperative Model has since been made available for all surrounding elementary and high school districts to draw upon for cooperation. The College now offers in-service courses for several elementary school districts and provides advice and consulting on facilities management to another. In one grant-funded project, the College is working with 35 secondary level teachers to help them earn the necessary credentials to teach mathematics, an area of acute shortage in all of our districts. At present, the College is considering the use of part of a vacant high school site in a Hispanic community for programs focused on that community's needs. The site would be occupied jointly with an elementary school district that outgrew its facilities years ago. This community presence can enhance access for a community from which the College hopes to attract additional students. The community will benefit if the incidence of college attendance increases as hoped. For example, student tours of the College planetarium, art gallery, and anthropology museum are now commonplace.

The College's new Honors Program admitted its first students in the fall of 1984. Initially focusing upon the social sciences, the program offers a structured alternative for transfer students who performed well in high school. The program also offers parameters for future reform of the general curriculum. The Honors Program core courses focus upon international affairs, cultural pluralism in American society, ethical issues in modern society, foreign languages, and computer literacy. For the fall of 1985, it is hoped that programs in the sciences and mathematics, business, and fine arts will be structured around the honors core to enhance student options.

Adaptation and Change

The College's staff development program remains at the center of all efforts to adjust to our changing environment. In recent years, the program has offered computer literacy workshops, retreats focusing upon the needs and potential of the underprepared and students from other cultures, and team teaching efforts linking content and basic skills instructors. The program is managed by a faculty member, focuses entirely upon classroom issues, and participation is always voluntary. Participation levels, however, remain high. The staff development effort is a positive response to change. And it is in this area that the effectiveness of our responses to new populations, a changing popular culture, and a high-technology economy built upon services, may hinge. The ability to match today's faculty and tomorrow's students will be decisive.

Elementary and secondary schools and community colleges are confronting the phenomenon of change without growth. Historically, we have relied upon revenue generated by growth to allow expansion to meet new needs. Today, we are facing new needs while experiencing contraction, so there is no new revenue. The financial uncertainties faced by California community colleges have added a further dimension by inhibiting planning and leading the colleges to operate in a reactive fashion. If we allow this to happen, new needs will never be addressed.

Community colleges have always prided themselves on innovation and flexibility. Perhaps today's crises are opportunities for us to demonstrate these qualities. We do face change without overall growth. But there are pockets of growth that need to be addressed, within the general population. Community colleges have historically served new populations, even when they presented new needs. There is no reason to assume that we shall do otherwise in the decade to come.

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What Colleges Must Do to Achieve Quality and Equity: A Campus-Based Case Study

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I appreciate the opportunity to pursue the question of the relationship between the drive for excellence and the need to protect and enhance access for minority students. Topics such as these require diligence and courage because they are controversial and among the most difficult challenges of the day.

I want to present to you a case study developed in collaboration with Dr. Tomás Arciniega, a colleague I've observed closely over the recent past. The case study involves a campus-based model being developed at Cal State Bakersfield, the purpose of which is to achieve quality and equity in a state university setting.

The perspective I'm representing is that of a participant observer in an ethnographic and anthropological sense. My observations were made in a variety of roles. I've been a part of the CSU as an activist minority faculty member, working at a similar campus for fourteen years. As one of the first Chicano faculty members hired at one CSU campus, I was frequently asked to develop new programs, yet I also had to fight to win three grievance cases dealing with issues of equity and quality. In 1984, as a part of a CSU program to prepare minority administrators, I served as an administrative fellow with Dr. Arciniega at Cal State Bakersfield during his first year as president. For the past three months, I've served as Dean of Graduate Studies and Research at CSB, heading a unit that has been a key part of the adminis-

trative reorganization of the campus. In addition, I participated as a part of the Commission on Hispanic Underrepresentation created by Dr. Ann Reynolds, Chancellor of the CSU, and chaired by Dr. Arciniega. In the above roles, my training in educational anthropology provided effective tools for interviewing, observing, and participating in a varied yet natural way. For example, I analyzed documents, attended cabinet, senate, and inter-agency meetings, interviewed key leaders among the faculty and community, and had regular weekly debriefing and analytical meetings with Dr. Arciniega.

The story I've come to tell is simply one of an unfinished, relatively successful effort for meaningful reforms in educational settings that stressed quality and access and progress for ethnic minority populations. In some ways, it is not a very pleasant story; but in other ways, it is an optimistic one, even if a bit unsettling. It seems that for those of us who care about improving the quality of life in our world through education, good work is never enough, and we must push and encourage one another to do a little more a little better and to do it creatively.

Let me start the story with a headline from September 1984 that read: "Trustees Against Remedial Education." This headline was a reaction to the Phase One report of the Commission on Hispanic Underrepresentation to the CSU Board of Trustees. The reactions to the report indicate both the deep commitment of policy makers who strive for quality and high standards and the need for leadership in the ranks of those of us who work for equity.

One person in this story is quoted as being concerned about holding firm on the new admission standards and another leads the charge calling for eliminating remedial education. Others argue that tutorials and learning assistance are a tradition within the history of the best universities and that a public university has an obligation to be careful about implementing changes which might accentuate discriminatory practices and further exclude underrepresented groups.

The Commission on Hispanic Underrepresentation

The educational situation of Hispanic people is historically significant in illustrating the lack of success of educational institutions in responding to Hispanic student needs in an effective manner.

In California and elsewhere throughout the nation, the educational

attainment of Hispanic students has been dramatically lower than that of non-Hispanic White students and members of other major ethnic minority groups. During the period between 1940 and 1960, for instance, many Hispanic children were in *de facto* segregated schools of poor quality. Their access to secondary schools was limited, and the dropout rate, especially for those moving from junior to senior high school, was exceedingly high.

As the civil rights and Chicano movements of the 1960s brought public attention to racism and other forms of social injustice, educational reform was viewed as the first step in providing equality of opportunity. Federal and state initiatives sought to decrease discrimination and provide equal education for ethnic minorities primarily through desegregation efforts and compensatory programs.

Recent research indicates that numerous factors are associated with low academic achievement of Hispanic students. Studies have found that school policies and practices such as tracking and "no Spanish" rules inhibit learning and contribute to high dropout rates among Hispanic students.

Other studies point to the negative quality of teacher-student interaction, of teacher attitudes, and low expectations as major factors contributing to the lack of achievement. These school policies and practices, teacher behaviors, and inappropriate curriculum have had minimal success with minority students in general. They have had a cumulatively more thwarting effect on minority students who speak a language other than English and whose parents have both low income and low educational levels.

These studies refute the perspective held by some people that cultural differences seen as inadequacies are responsible for the limited success and participation of Hispanic people in American education. From the cultural determinist perspective, the Hispanic child is supposed to be "deficient," and compensatory programs are needed to modify the child. This type of analysis fails to consider the unequal access to quality schools and other forms of educational discrimination. Moreover, the disparity between Hispanic culture and the expectations of the schools should not imply cultural deficiency; instead it should underscore the need for more appropriate responses by the schools to the special needs of ethno-linguistic youngsters.

The need to address the educational attainment of the Hispanic community is especially critical today because California is undergoing major demographic changes. Between 1967 and 1982, the number

of minority students in California's elementary and secondary schools nearly doubled. Hispanic students now comprise 26 percent of the total public school population, while students from all other minorities comprise 18 percent. In kindergarten, 34 percent of all children are Hispanic. It is estimated that by the year 2000 the Hispanic community will constitute more than one-fourth of the state's population.

Given these demographic trends, it is imperative that the educational systems of California begin to make major changes in order to develop the largely untapped Hispanic human resources of the state. Institutions of higher education and the major school districts in the state need to take a leadership role in making the changes that are needed to educate adequately Hispanic students in California.

Recognizing that educational systems, especially the California State University, have not been responsive to Hispanic needs, Chancellor Ann Reynolds appointed a Commission on Hispanic Underrepresentation in May 1984.

The task of this commission was to consider factors related to the participation of Hispanic men and women in postsecondary education and to make recommendations for increasing the proportion of this group that completes study in the California State University system. The establishment of such a body, charged with focusing its attention on a single ethnic group, was motivated by the reality that Hispanic students enroll in CSU at a rate less than one half of what their numbers in the general population would suggest. The increasing Hispanic population of our elementary schools promises that the situation will become much worse unless a major campaign is undertaken to change present circumstances dramatically.

Chancellor Reynolds took the lead in seeking educational reform within the CSU and within the state schools by pushing issues of quality and equity through implementation of the 35 recommendations of the Phase One report (See Appendix for recommendations). She and her staff used 12 of the recommendations to initiate a major program change proposal at a cost of approximately $11,000,000.

The second phase of the Commission will address additional financial aid issues, optimum utilization of support services, intersegmental collaboration between agencies, teacher education and the schools, curriculum, professional development, non-resident tuition, and undocumented persons.

Many of the strategies represented in the Commission report have been piloted in or are planned for the Cal State Bakersfield campus,

whose president is the moderator of the Commission. As illustrated in the following case, it is possible to attempt to transform a college with traditional elitist notions of quality into a more futuristic, regional institution that broadens its mission out of enlightened self-interest to meet the needs of surrounding communities.

A Campus-Based Model

In August 1983, Dr. Arciniega was appointed president of the smallest and youngest CSU campus in the 19-campus system. He was the third president of the campus and the first Hispanic to be appointed to head a CSU campus. In addition to the usual presidential responsibilities, he was charged with effecting a turnaround of positive momentum, to model equity efforts, and to champion quality issues in higher education.

Partly as a result of Dr. Arciniega's efforts, a campus-based model for dealing with quality and equity is evolving at CSB. Many other people are a part of the process as well, and effective development of workable programs and efforts would not be possible without critical participation and support from many vested interest groups involved in our campus community. We've learned already that it's not easy, but it *is* possible to develop an overall strategy that can work, in spite of minor day-to-day flaws and perennially needed improvements and adjustments.

A brief description of what we have developed at CSB through various planning documents and initiatives follows; it ends with a progress report.

Presentation to the CSB Faculty, Fall 1983

In the fall of 1983, Dr. Arciniega, then the newly appointed President of CSB, made this first major address to the college faculty. He began his presentation with a statement of his personal philosophy that issued a formal challenge to the whole college community to work together to achieve certain goals.

". . . I believe very strongly that the future of any college or university today is in the hands of its members and in the choice of goals and decisions each sets for itself. What is inevitably involved is the crucial

matter of effective adaptation to external forces even as we go about the business of trying to achieve internally set goals and objectives. I am convinced that the successful public colleges and universities in the next decade will be those willing to react aggressively to new forces and expanding regional community influences."

In regard to budget and access, the President indicated, "If the level of student fees becomes the sole definition of 'access,' then everyone will be poorly served when the institutions are under-funded. Inexpensive access to second-rate education is a disservice to the public, which must pay for maintaining our higher education system, and to the students."

In setting the direction for the campus, Dr. Arciniega explained through numerous historical examples how American higher education had changed in response to different forces over time. He laid out three basic questions as principal planning imperatives that called the campus to action at a broad general level.

1. How can this college ensure a more adequate budget base for itself to enable it to launch important new initiatives?

2. How can this college ensure institutional adaptiveness while maintaining a firm commitment to program quality and the preservation of balance across programs?

3. How can we best work together to ensure energetic and effective institutional leadership for our college in the face of an obvious need to change certain aspects of our status quo?

A few excerpts from the presentation explain the Arciniega strategies to answer the above questions. He tied enrollment increases to a response to the growing ethnic minority student pool in the region by presenting demographic data predictions through the year 2000 and beyond. His statistics showed that the very survival of CSB might depend on adapting to the needs of—as well as recruiting and retaining—minority and adult re-entry populations.

In his words, ". . . those institutions that do nothing to adjust to different student clienteles will suffer, while those that do adjust will prosper by comparison." He specifically targeted activities that CSB needed to undertake:

"For example, we will need to be especially responsive to student

demands for courses during the fall and winter quarters by opening additional sections, providing systematic advising help, publicizing open sections, etc.; and also by developing a more comprehensive approach to providing outreach and retention support services for ethnic minority and adult re-entry students. This probably will require organizing a strong learning assistance center program with tutorial, counseling, and academic advising services closely linked to regular English, mathematics, and science program areas; we must do something about major bottleneck problems in beginning mathematics and English courses. Ultimately, this will probably entail achieving a better articulation with regional high schools and community colleges, but initially we must concentrate on the problems of remedial course offerings and how to fund them. We must make a decision to push ahead with how best to square our academic-year calendar with that of the community colleges and the school districts in the area. This may mean going to a semester system, or, at the very least, beginning and ending our academic year more in line with a semester calendar. Finally, we must commit ourselves more fully to offering academic credit courses off campus and in satellite sites in our service area."

Dr. Arciniega called for greater involvement in outside funded projects and challenged everyone to work together to seek extramural funding opportunities to obtain flexible resources for creative, innovative efforts. He argued that the campus would benefit by people becoming more centrally involved in " a variety of disciplines," staying on top of "new developments," and engaging in "new research initiatives."

The second part of the presentation discussed institutional adaptability and quality, calling for a careful strategy of balance. Dr. Arciniega asked that balance be an ideal in attempts to expand programs and efforts to maintain the integrity and quality of academic programs while continuing a strong emphasis on the core disciplines. Again, he showed how an equity problem becomes an opportunity waiting for a creative solution:

"How do we move our institutional program agenda in a manner directly responsive and supportive of regional community needs while maintaining a continuing commitment to our traditional mission? I'm confident that we can and will, but we should be clear that it has to start with a hard look at ourselves and an effort to make our institution more attractive and relevant to new student clientele, whether

they belong to a particular ethnic group, are seeking a mid-life career change, or are returning to school after raising their families."

In discussing the need for effective campus leadership, Dr. Arciniega placed emphasis on administrators, faculty and staff, and student and community cooperation as means to solving the college's problems. He challenged those present to share the responsibility to ". . . create the conditions for progress and advancement on our campus." He asked for, and appears to be obtaining, a mutual understanding by all parts of the campus community of what it means to be committed to the institution.

During the past 15 months, he has put into place action-agenda priorities for the institution represented by the following:

Action Agenda of Institutional Priorities: 1983-84

1. Improve the morale situation on campus.
2. Reverse the enrollment decline we were in.
3. Improve the CSB image and achieve a better articulation of programs with the needs of the surrounding community.
4. Increase the level of outside funding support for the college.
5. Take steps to increase the number of ethnic minority and adult reentry students attending CSB.
6. Establish and maintain an effective working relationship with the student leadership.
7. Support Affirmative Action efforts to increase the number of ethnic minority and women employees.
8. Effect certain administrative reforms to improve our ability to respond to all of these areas.

Action Agenda of Institutional Priorities: 1984-85

1. Maintain the improved morale situation on campus.
2. Continue efforts to increase enrollments.
3. Continue efforts to improve the image and achieve a better articulation of programs with the needs of the region.
4. Increase the level of outside funding support for the college.

5. Increase the number of ethnic minority and adult re-entry students attending CSB.
6. Establish and maintain an effective working relationship with the student leadership.
7. Support Affirmative Action efforts to increase the number of ethnic minority and women employees.
8. Follow through on implementing administrative reforms made last year in order to respond more effectively in those areas.

Statement of Mission and Goals

During the past year the campus completed a statement of its mission and goals. The document is a collaborative effort that evolved from Mission Development Teams, the Long-Range Planning Committee, and the Budget and Planning Committee of the Academic Senate, together with and with approval by the President.

The content of the statement evolved through an interactive strategy between a mostly non-minority faculty with strong traditional academic values and a minority president with a strong record in championing equity. The process and product developed around an integrity for both sets of values, but the strategy of the president was to push quality issues first and add equity issues later. The statement is important, because it will guide policy and resource allocation for the campus and strategies for program and institutional development for many years to come.

The following are some important ideals espoused by the statement:

> "CSB is committed to providing excellence of instruction at the undergraduate and graduate levels. . . .
>
> "The relationship between the college and the immediate community constitutes a partnership which is essential to the accomplishment of the mission of CSB. . . .
>
> "The College recognizes also its responsibility in these times to be especially concerned with improving linkages with the service area communities.
>
> "The College recognizes that research endeavors of the academic community are essential in developing a superior curriculum, faculty, and educational environment. . . .

"Research and scholarship provide the college with the opportunity to address social issues and community needs. . . .

"Experimentation and creativity in the area of instruction need to be encouraged. . . .

"Instruction of the highest quality includes the development of curricula which are current, well balanced, and responsive to both the needs of the students and the demands of the disciplines. . . .

"The College should continue to provide needed academic support services to students, such as EOP, Student Affirmative Action, and the Learning Resource Center. . . .

"The organizational leadership should develop positive relationships with various publics and marshal the external resources necessary to support the continued development of the College. . . .

"The College should become a focal point for educational, cultural, and technical resources within the service area. . . .

"The College should explore and review procedures and mechanisms to efficiently develop and maintain liaison with the community. . . .

"It is the intent and responsibility of the College to comply fully with the Affirmative action policies and procedures of the Board of Trustees and the College's non-discrimination and affirmative action in employment statement of 1980. . . .

"The College should use every reasonable means possible in its recruitment of faculty and staff to increase the overall representation of minorities and females. . . .

"The College should make certain that its personnel policies and practices encourage the recruitment of and prevent discrimination against protected groups as defined by law. . . .

"Employment, retention and advancement of employees shall be based on merit and be responsive to the needs of the CSU for quality and excellence."

Preliminary Progress

CSB's outreach efforts are undergoing a major redirection in working with community colleges in the region. Transfer programs are being planned to emphasize increased collaborative efforts with regard to ethnic minority students in underrepresented categories. Interaction at many levels is occurring between CSB and community college administration, faculty, and staff.

CSB is also increasing its outreach efforts in the public schools, including cooperative activities with high schools and junior high schools. The president and district superintendents meet to plan and solve problems on a regular basis.

There has been a tremendous increase in scholarship money raised locally over the past 15 months. At least one $750 scholarship is available for an outstanding student in every high school and community college in the region. Forty-seven such scholarships were made available to prospective students form the special fund this year. The Hispanic Excellence Scholarship Committee was formed to raise money for outstanding students. Nine scholarships at $750 each were given this year.

The College established a positive image and relationship with the media. Coverage of CSB activities increased over the past year to more than double that of previous years.

The retention-support center of the campus was changed by developing an early-warning system, shifting counselors to help improve student guidance, and developing systematic efforts to assist the faculty and staff in relating to minority-student learning needs.

In terms of personnel, many more tenure-track faculty with minority backgrounds are being recruited and hired. Administrative staff are also becoming more representative of the service population, and not one administrator has been fired or demoted.

A clear overall institutional strategy is developing for participatory decision making. The collaboration of the faculty through the governing structure of the academic senate is collaborative and intense. Many significant administrative reforms have emphasized quality and excellence but are also aimed at increasing access to members of ethnic minorities.

Enrollments at CSB are growing and extramural funding and budgets are also increasing. Resistance to change is evident at times and implementation of policies is imperfect.

But the overall morale of the campus personnel is more positive than before, even though there are anxieties yet about the changes that are occurring. CSB appears to be on the move.

Conclusion

Friends who are interested tell me wisdom can sometimes be found within stories, so it is logical to ask, "What can we conclude from this particular one?"

There appear to be four underlying premises at work in the Arciniega strategy at CSB and in the Commission: (1) Educational reform is the first step in providing equality of opportunity; (2) High standards and excellence are ever-present goals; (3) Disparity between Hispanic culture and the expectations of schools does not imply deficiency but rather underscores the need for more appropriate responses by schools to the special needs of such students; and (4) Demographic realities require schools to adapt to changing populations in order to survive.

Several additional lessons seem evident:

First, educational reform must take place at various levels in order to effectively realize equality of educational opportunity and quality in educational settings.

Second, we can anticipate recurring debates in many quarters to test our clarity of vision about issues, our knowledge of what will work, our patience with established systems and procedures, and our need to create with courage.

Third, there is a compelling need for courageous leadership to target special efforts toward underrepresented groups. It is important that we recognize that institutions that start by targeting on one group must ultimately expand their aim to the equality problems of members of all minority groups.

Fourth, we propose to you today that there is no paradox between equity and quality. Setting up these two ideals as though they were opposites is, in our opinion, an outdated concept that should be put to rest. Equity and quality is not an either/or proposition. Quality education is a unanimous goal aggressively supported by those who work for social justice, those who are trying to affect the opportunity structures of higher education in the U.S. Equity is a principle which should

guide the implementation of innovation; and quality must include attention to equity. Implementation of reform whose goal is quality without assuring opportunity is counterproductive in a democratic society. To push equity without the ultimate goal of quality is the worst kind of paternalism and tokenism. What we want is creative leadership that understands the need for models that strive for quality and assure equity.

Certainly, it is in the best interests of all that every segment of the population has the full opportunity to develop talents, skills, and abilities essential to productive citizenship. The demographic changes in our society add urgency to the need to develop human resources so that we can maintain our leadership position in technology, enjoy economic growth, and improve quality of life for all citizens.

A holistic and complementary approach to quality and equity seems to be possible, even though there will be problems in implementation over time. The CSB and CSU case is an example that is evolving under reasonably difficult conditions. CSB is a state university experiencing some creative tension around some simple but profound issues.

Let us hope that today's ideals soon become tomorrow's reality.

Summary List of Recommendations

Below is a list of the recommendations of the Commission on Hispanic Underrepresentation. These recommendations are part of the first-phase report of the Commission and are best understood when read in the context of the report. Other recommendations will be forthcoming at the conclusion of the second phase of the Commission's work.

1. A staffing augmentation should be sought which will permit CSU to initiate an effective collaborative outreach program for intermediate and junior high schools. At a minimum this program should ensure regular written communication with all of these schools, reinforced by at least one on-site visit annually. Schools with a high proportion of Hispanic enrollment (20 percent) should be visited at least four times annually.

   Intermediate school outreach should be coordinated with other postsecondary segments, in particular, with the University of California, to ensure maximum coverage and mutual assistance.

2. The Chancellor's Office in cooperation with the campuses should develop a comprehensive, coordinated continuing public information program designed to heighten Hispanic community awareness of both the opportunities for postsecondary education and the means by which these

opportunities can be pursued. A major element of the plan should address the special skills required in working with different cultural and linguistic communities.

3. The csu should develop a cooperative pilot program involving at least two campuses and two large school districts with a large Hispanic population which would identify Hispanic and other students from underrepresented groups upon entrance to grade seven, record their educational progress and key choices, and provide a means for individualized communication at least two times annually.

4. The csu should examine both recently adopted and any proposed changes in admission policies for their impact upon Hispanic access. Should there be indication of negative impact, actions should be modified or delayed.

5. The csu should inventory public and private "talent search" programs servicing California and ensure that they are being fully utilized as a means of informing prospective Hispanic and other underrepresented students about opportunities in the csu.

6. The csu should develop programs to improve the quality of education for Hispanic students which involve the participation of secondary school "mentor teachers" as well as those selected to supervise student teachers. These should combine training, financial and time incentives, as well as methods to evaluate the impact on the achievement of Hispanic students.

7. The Chancellor's Office should study the manner in which campuses allocate so-called "general exceptions" with the end of achieving the optimum allocation of these spaces (together with "disadvantaged exceptions") toward overcoming the underrepresentation of Hispanics.

8. The Chancellor's Office and each campus with one or more Impacted Program should review supplemental admissions criteria from two perspectives. First, it should be ascertained that no criteria discriminate unjustly or in ways not relevant to the program and second, that all relevant criteria are being utilized which recognize the impact of past discrimination and the special skills and talents often possessed by Hispanic and other students from underrepresented groups. Insofar as Hispanic students are underrepresented in particular impacted programs, alternative criteria should be developed and they should be accorded priority where spaces still are not adequate to accommodate all qualified applicants. Finally, campuses should be required to maintain and report data concerning impact of supplemental criteria on Hispanic students.

9. The csu should initiate several pilot programs in 1985-86 to admit at least one hundred outstanding Hispanic students to a program which would combine completion of high school, university study and leadership training.

10. Cooperate with community colleges with substantial numbers of Hispanic students to develop early identification and tracking programs which

promise to motivate such students to persist and transfer without loss of time or credit.

11. The CSU should seek augmentation of its staff to maintain liaison with each of the community colleges identified under the provisions of AB 2638.

12. The Chancellor should encourage all CSU campuses to join in the California Articulation Number (CAN) project. If such voluntary participation does not result in significant progress during 1984-85, need for a mandatory system should be considered.

13. An intersegmental body should be constituted which would have continuing responsibility for the identification and dissemination of information about exemplary programs and practices associated with transfer and retention of Hispanic transfer students.

14. The CSU should take a leadership position within the higher education community in seeking to increase the amount of aid available to low-income students and to make programs more responsive to the needs of Hispanic and other underrepresented students.

15. CSU campuses should initiate college financial planning programs in cooperation with other educational institutions and the financial community. These programs should focus upon the families of intermediate school students, but be open to others as well.

16. CSU should propose state (and federal) legislation which would exempt educational savings by low-income families from tax liability and provide a modest tax credit when such savings are utilized for payment of bona fide educational costs.

17. An appropriation should be sought to provide "transition grants" to needy community college transfers for whom available aid resources are not suitable or adequate.

18. State funding should be sought to establish an upper division/postbaccalaureate fellowship program for talented Hispanic candidates for school service credentials who commit themselves to teaching in shortage fields and in underserved locations. The commitment should involve repayment if a specified period of qualifying service were not completed.

19. State and private funding should be sought to establish a Leaders Fellowship Program for talented upper division Hispanic students interested in committing themselves to employment within the private sector who will then assist in establishing linkages between the private sector and the CSU intended to expand both educational and employment opportunity for Hispanics. That assistance may include, but not be limited to, mentoring, role-modeling and business/industry liaison. The commitment should involve repayment if a specified period of qualifying service is not completed.

20. The CSU should expand its graduate student affirmative action efforts to identify prospective Hispanic graduate students, granting aid and other assistance to those who show promise of success in CSU graduate programs.

21. The California State University should support summer "bridge programs" on every campus to provide Hispanic students with an orientation to college life, assistance in academic skill development, and opportunities for motivation. The programs should be residential and about four weeks in length to ensure maximum program impact.

22. The California State University should provide summer bridge programs for Hispanic transfer students to orient them to the campus environment and provide academic assistance and advisement. Program design should recognize the time constraints of adult working students.

23. In order to meet the need for learning assistance for the development of basic skills and study habits the CSU should seek substantially increased support for learning assistance activity. Each campus should ensure that the organization and types of learning for assistance activities meet the needs of Hispanic students and that existing as well as additional resources be utilized to provide a comprehensive approach.

24. CSU campuses should give greater attention to the systematic identification of Hispanic students requiring instruction in English as a second language and ensure that ESL programs are available to them.

25. Each campus should be encouraged to give priority to hiring bilingual/cross cultural faculty. Forty additional faculty positions should be budgeted in 1985-86 for allocation to campuses on the basis of the nature of bilingual/cross-cultural program; and each campus should ensure that potential education students are aware of the career opportunities in bilingual/cross-cultural education and the financial support that is available to them.

26. The California State University should establish a research and development institute to study Hispanics in schools and colleges. The institute would conduct research on factors affecting the educational attainment of Hispanics, evaluate innovations and other programs to increase educational attainment, and develop, and evaluate curricular, training and other materials.

27. In view of the success of the Minority Engineering Program (MEP), efforts should be made to replicate this program in other disciplines.

28. In their roles as educational leaders and exemplars, CSU senior administrators and faculty leaders should take every opportunity to exemplify the system's dedication to equality of educational opportunity and the elimination of Hispanic underrepresentation. They should exert strong influence in this regard through the establishment of priorities, decision making, hiring practices, resource allocation, the reward structure and

the adoption of institutional procedures to audit progress toward equal opportunity goals.

29. The California State University should organize a series of retreats during 1984-85 for the purpose of addressing the problem of Hispanic underrepresentation. The retreats should involve faculty and administrative leaders from each of the 19 campuses.

30. To increase enrollment in and completion of advanced degree programs, the CSU should establish a program whereby outstanding CSU Masters degree candidates are identified through a competitive process and awarded fellowships for up to two (37) years of advanced graduate study in return for a commitment to serve in either a temporary or tenure track position upon completion.

31. The CSU should seek support to double the annual number of participants in the Administrative Fellows program. One half of the additional positions should be used in a pilot program to recruit non-CSU-based fellows.

32. CSU faculty development activities should be expanded (and funded) to include provisions whereby promising junior faculty and administrators can be granted up to 100 percent release time to complete terminal degree study or to participate in retraining in new fields and subfields.

33. The CSU should develop a system for advertising and tracking openings for faculty and administrative positions and for identifying Hispanics nationally for recruitment to those positions.

34. There should be a "set aside" of new faculty positions which would be allocated to those campuses which demonstrate the commitment and ability to identify and recruit Hispanic faculty.

35. The Chancellor's Office should conduct a self-study, utilizing outside consultants for added perspective, to determine how additional Hispanic representation might be achieved among professional staff.

Standards, Testing, And Access in the Year 2001

Dr. Frank Newman
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In order that we may look forward to the year 2001 with even the most modest degree of confidence, let me suggest that we start by looking backward. When undertaking such a difficult and dangerous task as predicting the future, we are surely wise to gain whatever help we can from the perspective of history.

On this assumption, what can one say about the trend over time as far as standards, testing, and access to American higher education are concerned? I believe we are entering the third major period of standards and testing—a somewhat unclear but still important demarcation by which higher education will be judged before the year 2001. I believe as well that we need a new and different approach to the standards that colleges use for admission and graduation and the testing by which they measure learning. These in turn influence both access and the modes of teaching and learning that institutions use. Neither the current approach to standards and testing nor the approach to teaching and learning will serve the country well during the closing decade and the second half of this century.

Historical Background

A Privileged Few

In the first major period, higher education was a function of privilege and position. Its role was the civilizing and education of those whom society recognized from the start as leading citizens. Even as late as 1940, when roughly 10 percent of each age group entered colleges and universities of all kinds, that 10 percent was largely a privileged group. If one wished to enter Princeton, or Williams, or even the Uni-

versity of Michigan, it was far better to have born the child of a graduate of that institution than simply to have been born bright.

Over a long period of time, higher education in this country began to move toward the second period—the period in which access and standards and testing were based much more on merit. The change, of course, did not occur at any one time or in any one way. For a long time both the concept of elitism and of merit coexisted side by side—one slowly giving ground, the other slowly gaining. Two disadvantages of the elitist system helped the move toward merit. The first was the resentment in a democratic society that opportunity should be closed to all but a few. To keep such a system of privilege in place in a modern society today against the pressure of middle-class aspiration requires a powerful hierarchy such as exists in the Soviet Union.

The second was the steady growth and demand for educated managers of the society—the bureaucrats, the technologists, the trained people of all sorts who could make both modern business and government function. Once the concept of General Motors or the modern federal government had been fashioned, thousand upon thousands of middle-level managers were required to make the system go.

The result was an intense effort to shift toward "objective" measures. This, as I have noted, did not occur all at once, but grew slowly with time. One must remember that as early as the 18th century, Jefferson viewed the need for some measure of merit. He argued that Virginia should "search among the rubble" of the common people to select "one young man" from each county to be given a college education. While describing the class that produced the bright but poor young men as "rubble" hardly seems egalitarian by our current standards, it was a radical concept in its day. When Britain began its attempts to measure scholastic ability by more objective terms in the late 1800s, they were similarly met with resistance and ridicule. Just a century ago, Gilbert and Sullivan's *Iolanthe* portrayed the Faire Queen's threat to the Lords to open up the role of the peers to "competitive examination."

The history of the College Board must itself be seen, not as it is now frequently portrayed—as a means for defending the status quo against new groups seeking access—but as a reform, a means for allowing the unconnected student from the unknown high school to have a chance to be admitted to a college or university in competition with students from the better-known high schools and prep schools.

Of course, it was not only changes in testing that were opening

access but other changes in higher education as well. Slowly the United States built Catholic colleges, universities, teachers' colleges, night law schools, great numbers of institutions that represented a bypass around the restricted channels of privileged access. By 1940, while the third generation Yalie still had a major advantage, the bright, very determined young woman or man had at least an opportunity.

Merit and Determination

By the start of World War II, one could say that the United States was operating a system of privilege tempered by a parallel system of opportunity based on merit and determination. It is important to remember that most students of high academic ability did *not* attend college. They simply did not think it was appropriate for them to aspire to a college education nor did they think that they could manage the finances that would be required (despite the success of the overachievers who worked their way through the more receptive universities and colleges).

With the end of World War II, and particularly with the advent of the GI Bill, the shift towards a merit system and away from a system of privilege was pronounced. For the first time there were enough applicants so that the best-known universities and colleges of the country—Harvard or Yale or Williams or Amherst—could become selective on the basis of merit. The number of scholastic aptitude tests administered, which had risen slowly from 20,000 per year in the 1920s to 30,000 per year in the 1930s jumped to over 2,000,000 by the 1950s. A host of new tests were developed to measure an applicant's abilities, particularly for the graduate and professional schools—GRES, LSATS, MCATS. If the English language had consisted of only as many letters as it has numerals, the testing industry would have been badly curtailed. The Merit Scholars program was established. Federal fellowships for the brightest graduate students were created.

The result was a new period of opportunity for able students from almost all walks of life. There was, of course, an important segment of the population that was only partially involved, namely, members of minority groups. Even with this major flaw, however, it was a remarkable change. Whereas 10 percent of each age group had attended college in 1940, by 1950 it was almost 20 percent, and by 1970 counting those that attended community colleges, it was closing in on 50 percent.

It was not only the fact that colleges became more accessible or that the testing process offered a chance of at least reasonable treatment on the part of applicants from ordinary families; there was new opportunity for the college graduate. Just as the numbers of graduates began to rise, so did the number of professional and managerial jobs. The large and rapidly growing organizations of American life seemed to have an insatiable appetite for middle-level professionals and managers who were well trained and able to do the job. Manufacturing firms needed managers of production control. Hospitals needed nurses. Banks needed economists. Governments needed social workers. The question was not so much, "Will there be a job when I graduate?" as much as "What kind of a job should I head for?" The professional and managerial jobs in our society, which had been about 13 percent of all jobs before World War II, blossomed to 17 percent by 1950 and to 26 percent by 1980.

The large organizations of our society were the centerpoints of this hiring. Corporations grew larger. The term "The Fortune 500" was coined. Organizational theorists refined the concept of management that exalted subdivision and specialization. The same was true in the rest of society. Large government developed, not only at the federal level, but at the state and local level as well. The federal government, which had just over 1,000,000 employees in 1940, had almost 3,000,000 by 1970. State and local governments grew from just over 2,000,000 employees to over 10,000,000.

With growth came the demand for better education and more specialized education. Governments wanted not just workers but transportation engineers, economists, planners.

Health care developed from a field in which the common organizational pattern was the single doctor operating from a small office to a huge medical care system in which all sorts of specialists were linked to a variety of organizations, not the least of which were large, complicated hospitals.

Education itself grew large. School districts merged under the pressure of state legislatures. Universities that had consisted of a few thousand students found themselves with twenty or thirty or even forty thousand. Multi-campus systems developed. Just as the health care community became specialized, so did the faculty.

By the 1960s we were well along in the era of expertise. We expected larger organizations, more dependence on specialists, and the solutions of our problems—social, economic, and technological—through

the diligent application of the techniques we learned in building IBM or the atomic bomb.

Knowledge Versus Egalitarianism

By the 1960s, the first predictions began to appear of what the third era would look like. Those with courage enough to make the predictions largely represented two convergent forces. The first were those who, believing that we were headed for a postindustrial knowledge society (Daniel Bell, or Peter Drucker, or a variety of others), spelled out for us the growing importance of information and of thinking and the declining importance of manual labor. Soon, they argued, knowledge and the ability to utilize it will be all that matters. Their expectation of the future was that more and more expertise would be required.

The other force was the growing argument for equal opportunity and egalitarianism. That evolution had a long, slow, on-and-off history. By 1968, however, with the death of Martin Luther King, an explosion of concern about educational opportunity occurred. Within five years there was massive change in the reality of educational opportunity. The numbers of minority students admitted to and ultimately graduating from the colleges and universities of the country doubled.

Unfortunately, since the end of that initial burst, further progress has not matched the promise. After the massive gains of the late 60s and the early 70s, minority participation in higher education has reached a plateau. In fact, we have lost ground slightly in terms of the share of the student body as far as Black and Hispanic students are concerned. Real equality of access has turned out to be more difficult than anyone had envisioned.

At the same time, the postindustrial, knowledge-oriented society seems to be developing somewhat differently than the early predictions had suggested. Most germane to our concerns here, the society that is developing seems likely to require different characteristics than those emphasized in the era of expertise, and thus one hopes for different tests and different standards. I say "one hopes" because frequently there is a considerable difference between the attributes that are needed to meet societal demands and the means of testing used to select students with the right attributes. Let me give only two examples.

Almost all descriptions of the characteristics needed for today's physician begin by describing the need for caring, concerned, and

committed people in order to bring effective medical care to the public. Similarly, graduate school catalogs describe the crucial requirement for Ph.D programs as the capacity for original scholarly research. No one familiar with the facts would argue that universities have been successful in selecting candidates for either of these programs who match the requirements stated. Few who gain the Ph.D., for example, have demonstrated either a capacity for or a desire to do original research.

Instead, the selection process takes on the characteristics of the provocative theory of social science called "Newman's Law," named, I hasten to add, not for me but for my wife. The theory holds that in the face of complexity, what *can* be measured *will* be measured and that in time, what is measured becomes normative. This explains the widespread use of GREs and MCATs. Their sponsors never claimed that they measured either potential "original thinkers" or "caring healers."

Where Are We Going?

With this in mind, what are the forces that will shape the characteristics to be encouraged in stage three? What changes in society are likely from now to the year 2001? What will this require of our graduates? How can the necessary standards for admission and graduation be established to ensure that the right students are selected and that the educational changes encouraged by those standards produce graduates who have the necessary attributes?

While there is no reason to believe that we might be any more successful in predicting the year 2001 than those courageous advocates of the postindustrial, knowledge-oriented society were in predicting the year 1984, there are at least a few clues that we might note. If we start with the economy, probably the most significant trend is not the arrival of computing in its many forms but rather the growing certainty of change. We are clearly moving into an era of new products, new processes, new markets, new competitors. The premium is increasingly entrepreneurial spirit—the capacity to be creative, to take risk, to face change.

In the immediate past, the era of expertise, the premium in many ways was size. While we bridled at the idea that what was good for General Motors was good for the nation, we did accept—sometimes reluctantly, sometimes with enthusiasm—that big was best. Now sud-

denly big is no longer a guarantor of survival, let alone the best. The biggest auto makers, steel companies, airlines, shipbuilders, and manufacturers of consumer electronics have been in big trouble. Many of the biggest electronic companies tried hard to enter the computer field—RCA, GE, Xerox. All lost big money.

Taking Risks

We have underway at the moment a study that deals with the nature of technological innovation. One segment examines how this occurs within the corporation, another with how it occurs within the university. As a part of this we wanted to compile a list of large and mature corporations—at least $1,000,000,000 in yearly sales and least 20 years old—that have been able to develop one technologically advanced product after another. To our amazement we discovered that there were simply very few companies that met these criteria. American corporations have traditionally stayed with the tried and true until intense foreign competition has driven them into looking more imaginatively at their products and processes.

One characteristic, therefore, that American higher education must encourage is that of initiative—the willingness to take risks, the willingness to face change. We will need more creativity, more ability to come up with new ideas throughout society. If the country is to live increasingly by its entrepreneurial skill, these characteristics must exist, not just at the top of the company or in a few scientists located in the research laboratories, but at all levels of management. (In fact, it must be encouraged at all levels of the company. One of Japan's advantages has been its ability to tap the creativity of its entire work force.)

What about the need for technical skills such as computer literacy or scientific literacy? Must these be increased? Of course science and technology of all sorts are becoming more integral to our lives with each passing year. Much more needs to be done to ensure scientific literacy of students. To date, however, we can find no evidence that the lack of science and mathematics ability has been what is holding this country back. This is hardly a reason to be satisfied with the performance of the educational system so far. Surely more rigorous science and mathematics education will help. It would be a mistake, however, to put the need for improvement in this category at the same level of priority as the need to improve our capacity for creativity and entrepreneurial spirit. Was U.S. Steel, RCA, or Chrysler short of tech-

nical skill? Rather it was the fear of change, the unwillingness of the whole organization to challenge itself that was so crucial.

International Understanding

A second characteristic need for economic development deserves attention. This economy, as is true of that of the whole world, is becoming more and more international. So is much of the rest of our lives. But our neglect of this dimension in our educational system is now coming home with a vengeance. This case has been argued so frequently and so insistently that one is almost tired of hearing the argument, yet it must be addressed. More is involved here than language skills, as important as those are. What is really at stake is the capacity for an understanding of how other cultures function—a sense of kinship across political boundaries, the capacity and interest to see how others view life.

Civic Responsibility

In terms of economics, therefore, the United States is moving toward an economic renewal, toward more entrepreneurial emphasis, toward more technology, more aggressiveness, more constructive self-criticism, more international involvement. What about the rest of our society, for example, our public life? Here the trend is equally clear but the likely outcome less certain.

The trend in our public life is that issues have become steadily more complicated—nuclear arms, future energy sources, disposal of toxic wastes, controls over genetic engineering, dealing with crime and poverty. In part, this may be due to our increased ability to discern and understand the complexity of such issues. At least in part, however, it is a function of the growing complexity of society. If the last two decades are an indicator of what the future holds, there will be a growing list of complicated, difficult, and even dangerous issues that society must resolve that will require a strong sense of civic willingness to work toward common solution.

At the same time there has been an increasing sense that the individual has less ability to control events, that government is less effective and responsive. The combination of these two forces, the growing complexity of the issues facing society and the perception that government is less effective in meeting the demands of these issues, has resulted in two major problems: an alienation of people from the political process (including a steady drop in the percentage of those

voting) and the growth of special interest politics, about which so much has been written.

What is needed in these circumstances is a revival of some old-fashioned concepts in American education, concepts that date back to the founding of our country. We need to renew our concern about education for civic responsibility. We need to encourage young men and women toward a willingness to be members of a larger group, to understand the essentiality of commitment to larger interests than simply themselves.

One might, therefore, argue that there are three requirements for American education that must be stressed; 1) creativity, innovativeness, a willingness and capacity to take risk; 2) international understanding, a tolerance for others' views, a sense of kinship across international boundaries, and intellectual interest in other cultures; and 3) a sense of civic responsibility, a commitment to the public interest as well as to self-interest.

What Do We Need to Learn?

In discussions around the country in the last few months with regard to these issues, people often respond, "Yes, these are valuable qualities, but *all* education rests upon knowledge and intellectual skills; *those* are the job of higher education." My answer to that is Yes and No. Yes, the development of these qualities is dependent upon a base of knowledge and the requisite intellectual skills; and no, that is not the sole job of American higher education.

There is a good deal of evidence that the ability to learn, such as the ability to assimilate information about other cultures, is dependent on a broad base of knowledge. It depends as well on intellectual skills such as the ability to think critically, to reason mathematically, to write clearly, etc. The evidence is not completely clear as to the degree to which this is the case, but surely no one would disagree as to the helpfulness of having a solid base of knowledge.

What one might well disagree with is that this is the sole job of American higher education. It is true that most of the time in both elementary and secondary education and in college is spent on the transfer of knowledge from teacher and books to student. Only a small share of the time is spent on the nurturing of intellectual skills. What has developed is a pattern of passive learning. The student sits

in class and listens with the hope of being able to read back the "right" answers or the "right" methodology on exams. If an essay exam is used, the student is almost always graded on the ability to respond with the predigested, teacher-provided, "right" interpretation.

In this scheme, the "good" student is the one who excels at the recall of facts and approaches (i.e., how to solve a given mathematical problem). Passive acceptance—at least through the final exam—of the world according to the teacher is a virtue. The assumption is that teachers cause learning, not that each student must become a learning colleague, aided and abetted by the teacher.

Standardized tests value the same capacities—the ability to recall knowledge and methodology. Since these tests, despite the careful disclaimers of their producers, are still the most important determinants of admission to selective programs, the system is self-enforcing. That which is easiest to do, the lecture, is done. That which is easiest to measure is measured. That which is measured has become the norm.

But what has any of this to do with the skills graduates need in life? Except for those whose tests scores are very low, the answer is, Not much. What has it to do with those capacities that will be essential by 2001—creativity, risk taking, international understanding, or civic responsibility? Nothing. It may be more serious than this implies. The encouragement of passive learning that results may mean that the answer is not "nothing" but some sort of negative relationship.

What is the answer? Can we test for creativity or civic responsibility? ETS has itself been the most determined examiner of this question over a long time. The answer, as expressed in their and other summaries of the literature is—Not yet. Quite a few research projects have attempted to measure the creativity of groups from preschoolers to older students. A number of tests have emerged, but none seem effective enough as yet.

Less work has been done in the area of civic responsibility, though some researchers have attempted to determine what experiences affect a sense of social responsibility. This is complicated by the tendency of those with the greatest sense of civic responsibility to volunteer for the experiences designed to help the student acquire this sense.

This does not mean either that we cannot select students who give evidence of possessing these attributes or that we cannot provide an education that encourages their development. In the absence of reliable tests, it is possible to use the students' past track records. Schools of the fine arts have for years used the requirement to present a portfo-

lio as a means of measuring artistic creativity. When criteria demonstrating past creativity, or risk taking, or civic responsibility, or all three are used, those selected do better in their academic work and, far more important, achieve more after graduating than students selected only by high grades and test scores.

We cannot only change how we select, but how we educate. There are literally hundreds of methods already in use that change the process of teaching so that the student becomes an active rather than a passive learner. Some involve participation in class, others team research projects, internships, student teaching, undergraduate participation in research. There are endless other possibilities, some involving work experiences or extracurricular experiences. There is nothing magical about any of these approaches except the results they produce in the students. What saves American higher education is that there are so many opportunities for students to have a growth experience, *despite* the way most courses are taught, that the individual flame of excitement often stays lit.

Standards for the Year 2001

What then should the standards be for the year 2001? For those programs that select applicants, the standard should be the applicant who will do the most in life, not the one who will do the best in this program (i.e., get excellent grades and cause no trouble). How can we test for these characteristics? Perhaps by the year 2001 there will be reliable tests. We learn more about testing every day. Perhaps we can do more systematically to utilize the candidate's past experiences. Maybe ETS should develop a universal form, carefully designed to elicit more than the applicant realizes is being revealed.

What is crucial is that the standards for admission, the teaching methods employed, and the testing method used to evaluate what has been learned must reinforce those values essential for society. Surely this must include a broad base of knowledge. Intellectual skills must also be included—not just writing and mathematical skills but analytical reasoning and verbal communication as well. But other capacities must also be given high priority including creativity, willingness to take risk, understanding of international cultures, and a sense of civic concern and responsibility.